



Db	181	TVSGSCMTGFSRAVQTHSKFFEDGSLKEVHKINEMYASLOELKSIKCKVEDSEQAV	240
Qy	241	DKLVKDVNRLKREIEIKRGAQIQAAAREKNIQKDPENIFLQALRTFFPNSEFLHSCVMS	300
Db	241	DKLVKDVNRLKREIEIKRGAQIQAAAREKNIQKDPENIFLQALRTFFPNSEFLHSCVMS	300
Qy	301	LKXRVHVSXSCNYNHHLDVVDNLTLMVHTDIPEASPASTPQIIKHKALDLDLDRWQFKRS	360
Db	301	LKXRVHVSXSCNYNHHLDVVDNLTLMVHTDIPEASPASTPQIIKHKALDLDLDRWQFKRS	360
Qy	361	RLLDTDQKRSKANTGSSNQDKASKMSSPETDEEIEKMGFGGEYSRSPTF	409
Db	361	RLLDTDQKRSKANTGSSNQDKASKMSSPETDEEIEKMGFGGEYSRSPTF	409
RESULT 18			
ID	ABU60513	standard; protein; 409 AA.	
XX	ABU60513		
AC	ABU60513		
XX	01-MAY-2003	(first entry)	
DT	Human secreted/transmembrane protein, #59.		
DE	Human; PRO; secreted; transmembrane; signal peptide; pharmaceutical;		
KW	diagnostic; therapeutic; gene therapy.		
KW			
OS	Homo sapiens.		
XX	US2002160384-A1.		
PN	31-OCT-2002.		
XX	14-NOV-2001; 2001US-00925598.		
PF	16-JUN-1997; 97US-0049787P.		
PR	17-OCT-1997; 97US-0062250P.		
PR	05-NOV-1997; 97WO-US020069.		
PR	12-NOV-1997; 97US-0065186P.		
PR	13-NOV-1997; 97US-0065311P.		
PR	24-NOV-1997; 97US-0065770P.		
PR	25-FEB-1998; 98US-0075945P.		
PR	20-MAR-1998; 98US-0078910P.		
PR	28-APR-1998; 98US-0083322P.		
PR	07-MAY-1998; 98US-0084600P.		
PR	28-MAY-1998; 98US-0087106P.		
PR	02-JUN-1998; 98US-0087607P.		
PR	02-JUN-1998; 98US-0087609P.		
PR	02-JUN-1998; 98US-0087759P.		
PR	03-JUN-1998; 98US-0087827P.		
PR	04-JUN-1998; 98US-0088021P.		
PR	04-JUN-1998; 98US-0088025P.		
PR	04-JUN-1998; 98US-0088026P.		
PR	04-JUN-1998; 98US-0088028P.		
PR	04-JUN-1998; 98US-0088029P.		
PR	04-JUN-1998; 98US-0088030P.		
PR	04-JUN-1998; 98US-0088033P.		
PR	05-JUN-1998; 98US-0088326P.		
PR	05-JUN-1998; 98US-0088167P.		
PR	05-JUN-1998; 98US-0088202P.		
PR	05-JUN-1998; 98US-0088212P.		
PR	05-JUN-1998; 98US-0088217P.		
PR	09-JUN-1998; 98US-0088655P.		
PR	10-JUN-1998; 98US-0088734P.		
PR	10-JUN-1998; 98US-0088742P.		
PR	10-JUN-1998; 98US-0088810P.		
PR	10-JUN-1998; 98US-0088824P.		
PR	10-JUN-1998; 98US-0088826P.		
PR	11-JUN-1998; 98US-0088858P.		
PR	11-JUN-1998; 98US-0088861P.		
PR	11-JUN-1998; 98US-0088876P.		
PR	11-JUN-1998; 98US-0088876P.		
PR	12-JUN-1998; 98US-0089105P.		
PR	16-JUN-1998; 98US-0089440P.		
PR	16-JUN-1998; 98US-0089512P.		
PR	16-JUN-1998; 98US-0089514P.		
PR	17-JUN-1998; 98US-0089532P.		
PR	17-JUN-1998; 98US-0089538P.		
PR	17-JUN-1998; 98US-0089598P.		
PR	17-JUN-1998; 98US-0089599P.		
PR	17-JUN-1998; 98US-0089600P.		
PR	17-JUN-1998; 98US-0089653P.		
PR	18-JUN-1998; 98US-0089801P.		
PR	18-JUN-1998; 98US-0089907P.		
PR	18-JUN-1998; 98US-0089908P.		
PR	18-SEP-1998; 98WO-US019330.		
PR	17-SEP-1998; 98WO-US019437.		
PR	07-OCT-1998; 98WO-US021141.		
PR	01-DEC-1998; 98WO-US025108.		
PR	05-JAN-1999; 99WO-US000106.		
PR	08-MAR-1999; 99WO-US005028.		
PR	02-JUN-1999; 99WO-US012252.		
PR	15-SEP-1999; 99WO-US021090.		
PR	15-SEP-1999; 99WO-US021547.		
PR	30-NOV-1999; 99WO-US028313.		
PR	01-DEC-1999; 99WO-US028301.		
PR	16-DEC-1999; 99WO-US028634.		
PR	20-DEC-1999; 99WO-US030911.		
PR	05-JAN-2000; 2000WO-US000219.		
PR	06-JAN-2000; 2000WO-US000376.		
PR	11-FEB-2000; 2000WO-US003565.		
PR	18-FEB-2000; 2000WO-US004341.		
PR	22-FEB-2000; 2000WO-US004414.		
PR	24-FEB-2000; 2000WO-US004914.		
PR	24-FEB-2000; 2000WO-US005004.		
PR	02-MAR-2000; 2000WO-US005841.		
PR	10-MAR-2000; 2000WO-US006319.		
PR	15-MAR-2000; 2000WO-US006884.		
PR	20-MAR-2000; 2000WO-US007377.		
PR	30-MAR-2000; 2000WO-US008439.		
PR	15-MAY-2000; 2000WO-US013358.		
PR	17-MAY-2000; 2000WO-US013705.		
PR	22-MAY-2000; 2000WO-US014042.		
PR	30-MAY-2000; 2000WO-US014941.		
PR	02-JUN-2000; 2000WO-US015264.		
PR	28-JUL-2000; 2000WO-US020710.		
PR	11-AUG-2000; 2000WO-US022031.		
PR	23-AUG-2000; 2000WO-US023522.		
PR	24-AUG-2000; 2000WO-US023328.		
PR	08-NOV-2000; 2000WO-US030952.		
PR	01-DEC-2000; 2000WO-US032678.		
PR	28-FEB-2001; 2001WO-US006520.		
PR	01-JUN-2001; 2001WO-US017800.		
PR	20-JUN-2001; 2001WO-US019692.		
PR	29-JUN-2001; 2001WO-US021066.		
PR	03-JUL-2001; 2001WO-US021735.		
PR	28-AUG-2001; 2001US-00941992.		
XX	(GETH ) GENENTECH INC.		
XX	Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;		
XX	Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ;		
PI	Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Paoni NF;		
PI	Roy MA, Stewart TA, Tamas D, Watanabe CK, Williams PM, Wood WI;		
PI	Zhang Z;		
XX	WPI; 2003-288106/28.		
DR	N-PSDB; ABX90204.		
XX	New transmembrane polypeptides and nucleic acids encoding the		
PT	polypeptides, useful in gene therapy, in chromosome identification, as		
PT	chromosome markers, or in generating probes.		
XX	Claim 12; Fig 95; 650pp; English.		
PS			



XX The invention discloses isolated PRO secreted/transmembrane polypeptides  
CC comprising a sequence without signal peptide and the nucleic acid  
CC encoding them. The polypeptides can be used to raise antibodies that  
CC specifically bind to the PRO polypeptide, for linking a bioactive  
CC molecule to a cell expressing a PRO protein and for modulating at least  
CC one biological activity of a cell. The PRO polypeptides or  
CC polynucleotides are also useful in gene therapy, in chromosome  
CC identification, as chromosome markers, or in generating probes. The PRO  
CC polypeptides are useful as molecular markers for protein electrophoresis,  
CC and the isolated nucleic acids may be used for recombinantly expressing  
CC those markers. The PRO polypeptides and nucleic acids may also be used in  
CC tissue typing. Anti-PRO antibodies are useful in diagnostic assays for  
CC PRO, and in affinity purification of PRO from recombinant cell culture or  
CC natural sources. The sequences presented in ABU60478-ABU60624 are the PRO  
CC polynucleotides of the invention. Note: The sequence data for this patent  
CC is also available in electronic format from USPTO at  
CC seqdata.uspto.gov/sequence.html  
XX  
SQ Sequence 409 AA;  
  
Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 1 MEGESTSAVLGCVLGALAFQHLNTDSDTEGFLGCVKGEAKNSITDSQMDDEVVYTIID 60  
DB 1 MEGESTSAVLGCVLGALAFQHLNTDSDTEGFLGCVKGEAKNSITDSQMDDEVVYTIID 60  
  
QY 61 IQKIYPCQLFQFYNSSGVEVNEQALKKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120  
DB 61 IQKIYPCQLFQFYNSSGVEVNEQALKKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120  
  
QY 121 LQEHFSDQLVFLLLTPSIITSCSTHRLSHLYKPKQGLFHRVPLVYVANLGMSEQLGYK 180  
DB 121 LQEHFSDQLVFLLLTPSIITSCSTHRLSHLYKPKQGLFHRVPLVYVANLGMSEQLGYK 180  
  
QY 181 TVSGSCMSTGFRVQVTHSSKFEEDGSLKEVHKINEMVYASLOELKSIKCKVDESOAV 240  
DB 181 TVSGSCMSTGFRVQVTHSSKFEEDGSLKEVHKINEMVYASLOELKSIKCKVDESOAV 240  
  
QY 241 DKLVKDVNRLKREIEKRGCAQIQAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
DB 241 DKLVKDVNRLKREIEKRGCAQIQAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
  
QY 301 LKNRHVSKSCNHNHLDVVDNLTLMVHTDIPASPASTPQIIKHKALDLDLDRWQFKRS 360  
DB 301 LKNRHVSKSCNHNHLDVVDNLTLMVHTDIPASPASTPQIIKHKALDLDLDRWQFKRS 360  
  
QY 361 RLIDTQDKSKANTGSSNQDKASKKSSPTDDEIEKMGFGFYRSPTF 409  
DB 361 RLIDTQDKSKANTGSSNQDKASKKSSPTDDEIEKMGFGFYRSPTF 409  
  
RESULT 19  
ABU96195  
ID ABU96195 standard; protein; 409 AA.  
XX  
AC ABU96195;  
XX  
XX  
DT 25-JUL-2003 (first entry)  
XX  
DE Novel human secreted and transmembrane protein PRO1013.  
XX  
KW Human; secreted and transmembrane protein; PRO; transgenic animal;  
KW knockout; chromosome identification; tissue typing; tumour;  
KW chondrocyte proliferation; chondrocyte differentiation;  
KW tumor necrosis factor-alpha release stimulator.  
XX  
OS Homo sapiens.  
XX  
XX US2003036144-A1.  
XX

PD  
XX  
PF 01-JUL-2002; 2002US-00187601.  
XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 28-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077849P.  
PR 20-MAR-1998; 98US-0078866P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 22-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 05-MAY-1998; 98US-0083559P.  
PR 06-MAY-1998; 98US-0084366P.  
PR 07-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088036P.  
PR 05-JUN-1998; 98US-0088157P.  
PR 05-JUN-1998; 98US-0088202P.

```
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088655P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090423P.
PR 24-JUN-1998; 98US-0090433P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088655P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090423P.
PR 24-JUN-1998; 98US-0090433P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 23-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 25-SEP-1998; 98US-0102207P.
PR 25-SEP-1998; 98US-0102240P.
PR 25-SEP-1998; 98US-0102330P.
PR 25-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 23-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 25-SEP-1998; 98US-0102207P.
PR 25-SEP-1998; 98US-0102240P.
PR 25-SEP-1998; 98US-0102330P.
PR 25-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.
Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MEGESTSAVLGFLGALAFQHLNLTSDTEGFLGKGNKSIITDSQMDVVEVYITD 60
Db 1 MEGESTSAVLGFLGALAFQHLNLTSDTEGFLGKGNKSIITDSQMDVVEVYITD 60
Qy 61 IQKYIPCYOLFSGYNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120
Db 61 IQKYIPCYOLFSGYNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120
Qy 121 LQEHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVNLGMSQLGYK 180
Db 121 LQEHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVNLGMSQLGYK 180
Qy 181 TVSGSCWSTGFSRAVQTHSKFPEEDGSLKEVHKINEMVASIQEELKSIKCKVEDSEQAV 240
Db 181 TVSGSCWSTGFSRAVQTHSKFPEEDGSLKEVHKINEMVASIQEELKSIKCKVEDSEQAV 240
Qy 241 DKLVKDVNRLKREIEKRRGAQIQAAEKNIQKDPQNIQLCOALRFFPNSEFLHSCVMS 300
Db 241 DKLVKDVNRLKREIEKRRGAQIQAAEKNIQKDPQNIQLCOALRFFPNSEFLHSCVMS 300
Qy 301 LKRRHVSKSCNYYNHLVDVNDLTLMVEHTDIPASPASTPQIIKHKALDLDORWOFKRS 360
Db 301 LKRRHVSKSCNYYNHLVDVNDLTLMVEHTDIPASPASTPQIIKHKALDLDORWOFKRS 360
Qy 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMGFGFYSRPTTF 409
Db 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMGFGFYSRPTTF 409
RESULT 20
ABU92626
```

ID ABU92626 standard; protein; 409 AA.  
XX AC ABU92626;  
XX DT  
XX DT 18-JUL-2003 (first entry)  
XX XX  
XX DE Human secreted/transmembrane protein (PRO) #67.  
XX XX  
XX KW Human; secreted protein; transmembrane protein; PRO; tumour;  
XX KW proliferation; differentiation; chondrocyte cell; TNF-alpha;  
XX KW tumour necrosis factor-alpha; gene therapy.  
XX OS  
XX XX Homo sapiens.  
XX PN US2003036149-A1.  
XX XX  
XX PD 20-FEB-2003.  
XX XX  
XX PF 02-JUL-2002; 2002US-00187746.  
XX XX  
PR 18-SEP-1997; 97US-0052633P.  
PR 18-SEP-1997; 97US-0052666P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064101P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0069871P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 03-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086352P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088336P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088851P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089539P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090439P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.

```
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-00980716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98MO-US019330.
PR 17-SEP-1998; 98US-0100633P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 24-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103443P.
PR 07-OCT-1998; 98US-00168978.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLSGFLVGLAFQHLNTDSTEGFLIGEVKGEAKNSITDSQMDVVEVYTIID 60
DB 1 MEGESTSAVLSGFLVGLAFQHLNTDSTEGFLIGEVKGEAKNSITDSQMDVVEVYTIID 60
QY 61 IQKIYPCQLFSGFYNSGVEVNEQALKKILSNVKKVGVGVYKFRHSDQIMTFRERLLHKN 120
DB 61 IQKIYPCQLFSGFYNSGVEVNEQALKKILSNVKKVGVGVYKFRHSDQIMTFRERLLHKN 120
QY 121 LOEHFSNQDLVPLLLTPSIIITSCSTHRLHSLYKPKGLFHRVPLVYVNIAGMSEQLGYK 180
DB 121 LOEHFSNQDLVPLLLTPSIIITSCSTHRLHSLYKPKGLFHRVPLVYVNIAGMSEQLGYK 180
QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEBELKSIKKVDESEQAV 240
DB 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEBELKSIKKVDESEQAV 240
```

```
Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEBELKSIKKVDESEQAV 240
QY 241 DKLVKDVNRLKREIEKRRGAQIQAAREKNIQKDPQENIFLCOALATFFPNSEFLHSCVMS 300
DB 241 DKLVKDVNRLKREIEKRRGAQIQAAREKNIQKDPQENIFLCOALATFFPNSEFLHSCVMS 300
QY 301 LKNRHVSKSSCNYNHLDVNDLTLMVZHTDIPASASTTQIIKHKALDLDLDRWQFKRS 360
DB 301 LKNRHVSKSSCNYNHLDVNDLTLMVZHTDIPASASTTQIIKHKALDLDLDRWQFKRS 360
QY 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEEIEKMKGFGEYSRSPTF 409
DB 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEEIEKMKGFGEYSRSPTF 409

RESULT 21
ABO08703
ID ABO08703 standard; protein; 409 AA.
XX
AC ABO08703;
DT 17-AUG-2003 (first entry)
XX
DE Human secreted/transmembrane protein (PRO) #67.
XX
KW Human; secreted and transmembrane protein; PRO; TNF-alpha;
KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;
KW tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.
XX
OS Homo sapiens.
XX
PN US2003044923-A1.
XX
PD 06-MAR-2003.
XX
PF 24-JUN-2002; 2002US-00179522.
XX
PR 18-SEP-1997; 97US-0059263P.
PR 18-SEP-1997; 97US-0059266P.
PR 17-OCT-1997; 97US-0062250P.
PR 21-OCT-1997; 97US-0063486P.
PR 24-OCT-1997; 97US-0063120P.
PR 24-OCT-1997; 97US-0063121P.
PR 28-OCT-1997; 97US-0063540P.
PR 28-OCT-1997; 97US-0063541P.
PR 28-OCT-1997; 97US-0063544P.
PR 28-OCT-1997; 97US-0063564P.
PR 28-OCT-1997; 97US-0063734P.
PR 31-OCT-1997; 97US-0063870P.
PR 31-OCT-1997; 97US-0064103P.
PR 13-NOV-1997; 97US-0065311P.
PR 21-NOV-1997; 97US-0066120P.
PR 24-NOV-1997; 97US-0066466P.
PR 24-NOV-1997; 97US-0066772P.
PR 11-DEC-1997; 97US-0069335P.
PR 12-DEC-1997; 97US-0069425P.
PR 12-DEC-1997; 97US-0069870P.
PR 17-DEC-1997; 97US-0068017P.
PR 18-DEC-1997; 97US-0077450P.
PR 10-MAR-1998; 98US-0077632P.
PR 11-MAR-1998; 98US-0077649P.
PR 20-MAR-1998; 98US-0078886P.
PR 20-MAR-1998; 98US-0078939P.
PR 27-MAR-1998; 98US-0079664P.
PR 27-MAR-1998; 98US-0079786P.
PR 31-MAR-1998; 98US-0080107P.
PR 31-MAR-1998; 98US-0080194P.
PR 01-APR-1998; 98US-0080327P.
PR 01-APR-1998; 98US-0080333P.
PR 08-APR-1998; 98US-0081049P.
PR 08-APR-1998; 98US-0081070P.
PR 09-APR-1998; 98US-0081195P.
```

PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083435P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0083666P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 16-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088032P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 05-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 12-JUN-1998; 98US-0089512P.  
PR 15-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089808P.  
PR 18-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090464P.  
PR 24-JUN-1998; 98US-0090465P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 25-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 01-JUL-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 29-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 29-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102684P.  
PR 01-OCT-1998; 98US-0102687P.  
PR 02-OCT-1998; 98US-0102965P.  
PR 06-OCT-1998; 98US-0103258P.  
PR 06-OCT-1998; 98US-0103449P.

Query Match

100.0%;

Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred. No. 0;		Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
QY	1	MEGESTAVLSGFLVGLAFOHLNTDSTEGFLGKVGKAKNITSQMDDEVVVTID	60
Db	1	MEGESTAVLSGFLVGLAFOHLNTDSTEGFLGKVGKAKNITSQMDDEVVVTID	60
QY	61	IQKIPCYQLSFYNSGSEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRRLLHKN	120
Db	61	IQKIPCYQLSFYNSGSEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRRLLHKN	120
QY	121	LOEHFSNQDLVFLLLTPSIITESCTHLEHSLYKPKGLFHRVPLVAVNLGMSQOLGYK	180
Db	121	LOEHFSNQDLVFLLLTPSIITESCTHLEHSLYKPKGLFHRVPLVAVNLGMSQOLGYK	180
QY	181	TVSGCMSTGSRVQTHSSKFEEDGSLKEVHKINEMVYASIQELKSIKCKVEDSQAQV	240
Db	181	TVSGCMSTGSRVQTHSSKFEEDGSLKEVHKINEMVYASIQELKSIKCKVEDSQAQV	240
QY	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPENIFLCOALRTFPNSEFLHSCVMS	300
Db	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPENIFLCOALRTFPNSEFLHSCVMS	300
QY	301	LKQHVSKSSCNVNHLDVNDLTLVHEHTDIPEASPASTPQILKHKALDLDLDRWQFKRS	360
Db	301	LKQHVSKSSCNVNHLDVNDLTLVHEHTDIPEASPASTPQILKHKALDLDLDRWQFKRS	360
QY	361	RLLDTDQKRSKANTGSSNODKASKMSSPETDEIEKMGFGFGEYSRPTF	409
Db	361	RLLDTDQKRSKANTGSSNODKASKMSSPETDEIEKMGFGFGEYSRPTF	409
RESULT 22			
ABO02755			
ID	ABO02755 standard; protein; 409 AA.		
XX	AC ABO02755;		
XX	09-AUG-2003 (first entry)		
XX	Human secreted/transmembrane protein (PRO) #67.		
KW	Human; secreted and transmembrane protein; PRO; TNF-alpha;		
KW	tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;		
XW	tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;		
XX	prostate tumour; rectal tumour; cervical tumour; liver tumour.		
OS	Homo sapiens.		
XX	US2003040062-A1.		
XX	27-FEB-2003.		
XX	25-JUN-2002; 2002US-00180545.		
XX	18-SEP-1997; 97US-0059263P.		
PR	18-SEP-1997; 97US-0059266P.		
PR	17-OCT-1997; 97US-0062250P.		
PR	21-OCT-1997; 97US-0063486P.		
PR	24-OCT-1997; 97US-0063120P.		
PR	24-OCT-1997; 97US-0063121P.		
PR	28-OCT-1997; 97US-0063540P.		
PR	28-OCT-1997; 97US-0063541P.		
PR	28-OCT-1997; 97US-0063544P.		
PR	28-OCT-1997; 97US-0063564P.		
PR	29-OCT-1997; 97US-0063734P.		
PR	31-OCT-1997; 97US-0063870P.		
PR	31-OCT-1997; 97US-0064103P.		
PR	13-NOV-1997; 97US-0065311P.		
PR	21-NOV-1997; 97US-0066120P.		
PR	24-NOV-1997; 97US-0066466P.		
PR	24-NOV-1997; 97US-0066772P.		
PR	11-DEC-1997; 97US-0069335P.		

PR	12-DEC-1997;	97US-0069425P.
PR	17-DEC-1997;	97US-0069870P.
PR	18-DEC-1997;	97US-0068017P.
PR	10-MAR-1998;	98US-0077450P.
PR	11-MAR-1998;	98US-0077632P.
PR	11-MAR-1998;	98US-0077649P.
PR	20-MAR-1998;	98US-0078866P.
PR	20-MAR-1998;	98US-0078939P.
PR	27-MAR-1998;	98US-0079664P.
PR	27-MAR-1998;	98US-0079786P.
PR	31-MAR-1998;	98US-0080107P.
PR	31-MAR-1998;	98US-0080194P.
PR	01-APR-1998;	98US-0080327P.
PR	01-APR-1998;	98US-0080333P.
PR	08-APR-1998;	98US-0081049P.
PR	08-APR-1998;	98US-0081070P.
PR	09-APR-1998;	98US-0081195P.
PR	15-APR-1998;	98US-0081838P.
PR	21-APR-1998;	98US-0082568P.
PR	21-APR-1998;	98US-0082569P.
PR	22-APR-1998;	98US-0082704P.
PR	22-APR-1998;	98US-0082797P.
PR	28-APR-1998;	98US-0083322P.
PR	29-APR-1998;	98US-0083495P.
PR	29-APR-1998;	98US-0083496P.
PR	29-APR-1998;	98US-0083499P.
PR	29-APR-1998;	98US-0083558P.
PR	05-MAY-1998;	98US-0084366P.
PR	06-MAY-1998;	98US-0084414P.
PR	07-MAY-1998;	98US-0084639P.
PR	07-MAY-1998;	98US-0084640P.
PR	07-MAY-1998;	98US-0084643P.
PR	15-MAY-1998;	98US-0085579P.
PR	15-MAY-1998;	98US-0085580P.
PR	15-MAY-1998;	98US-0085582P.
PR	15-MAY-1998;	98US-0085700P.
PR	22-MAY-1998;	98US-0086023P.
PR	22-MAY-1998;	98US-0086392P.
PR	28-MAY-1998;	98US-0086486P.
PR	28-MAY-1998;	98US-0087098P.
PR	28-MAY-1998;	98US-0087208P.
PR	02-JUN-1998;	98US-0087609P.
PR	02-JUN-1998;	98US-0087759P.
PR	03-JUN-1998;	98US-0087827P.
PR	04-JUN-1998;	98US-0088025P.
PR	04-JUN-1998;	98US-0088028P.
PR	04-JUN-1998;	98US-0088029P.
PR	04-JUN-1998;	98US-0088033P.
PR	04-JUN-1998;	98US-0088326P.
PR	05-JUN-1998;	98US-0088167P.
PR	05-JUN-1998;	98US-0088202P.
PR	05-JUN-1998;	98US-0088212P.
PR	05-JUN-1998;	98US-0088217P.
PR	09-JUN-1998;	98US-0088655P.
PR	10-JUN-1998;	98US-0088722P.
PR	10-JUN-1998;	98US-0088738P.
PR	10-JUN-1998;	98US-0088740P.
PR	10-JUN-1998;	98US-0088811P.
PR	10-JUN-1998;	98US-0088824P.
PR	10-JUN-1998;	98US-0088825P.
PR	10-JUN-1998;	98US-0088826P.
PR	11-JUN-1998;	98US-0088861P.
PR	11-JUN-1998;	98US-0088863P.
PR	11-JUN-1998;	98US-0088876P.
PR	11-JUN-1998;	98US-0089090P.
PR	12-JUN-1998;	98US-0089105P.
PR	12-JUN-1998;	98US-0089512P.
PR	16-JUN-1998;	98US-0089514P.
PR	17-JUN-1998;	98US-0089538P.
PR	17-JUN-1998;	98US-0089598P.
PR	17-JUN-1998;	98US-0089653P.
PR	18-JUN-1998;	98US-0089908P.
PR	19-JUN-1998;	98US-0089952P.

```
PR 22-JUN-1998; 98US-0030246P.
PR 22-JUN-1998; 98US-0030252P.
PR 22-JUN-1998; 98US-0030254P.
PR 24-JUN-1998; 98US-0030439P.
PR 24-JUN-1998; 98US-0030435P.
PR 24-JUN-1998; 98US-0030444P.
PR 24-JUN-1998; 98US-0030461P.
PR 24-JUN-1998; 98US-0030535P.
PR 24-JUN-1998; 98US-0030540P.
PR 25-JUN-1998; 98US-0030676P.
PR 25-JUN-1998; 98US-0030678P.
PR 25-JUN-1998; 98US-0030688P.
PR 25-JUN-1998; 98US-0030690P.
PR 25-JUN-1998; 98US-0030694P.
PR 25-JUN-1998; 98US-0030695P.
PR 25-JUN-1998; 98US-0030696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0030862P.
PR 26-JUN-1998; 98US-0030863P.
PR 26-JUN-1998; 98US-0031010P.
PR 01-JUL-1998; 98US-0031359P.
PR 01-JUL-1998; 98US-0031544P.
PR 02-JUL-1998; 98US-0031478P.
PR 02-JUL-1998; 98US-0031486P.
PR 02-JUL-1998; 98US-0031636P.
PR 02-JUL-1998; 98US-0031632P.
PR 04-JUL-1998; 98US-0034006P.
PR 04-AUG-1998; 98US-0035282P.
PR 10-AUG-1998; 98US-0035398P.
PR 10-AUG-1998; 98US-0036012P.
PR 17-AUG-1998; 98US-0036766P.
PR 17-AUG-1998; 98US-0036891P.
PR 17-AUG-1998; 98US-0036897P.
PR 18-AUG-1998; 98US-0036949P.
PR 18-AUG-1998; 98US-0036959P.
PR 18-AUG-1998; 98US-0037022P.
PR 26-AUG-1998; 98US-0037952P.
PR 26-AUG-1998; 98US-0037954P.
PR 26-AUG-1998; 98US-0037955P.
PR 26-AUG-1998; 98US-0037971P.
PR 26-AUG-1998; 98US-0037974P.
PR 01-SEP-1998; 98US-0038014P.
PR 01-SEP-1998; 98US-0038716P.
PR 02-SEP-1998; 98US-0038733P.
PR 02-SEP-1998; 98US-0038803P.
PR 02-SEP-1998; 98US-0038821P.
PR 09-SEP-1998; 98US-0039602P.
PR 10-SEP-1998; 98US-0039741P.
PR 10-SEP-1998; 98US-0039754P.
PR 10-SEP-1998; 98US-0039763P.
PR 10-SEP-1998; 98US-0039812P.
PR 15-SEP-1998; 98US-0100388P.
PR 15-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-01019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100694P.
PR 17-SEP-1998; 98US-0100919P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 23-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101739P.

PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLSGFVLGALAFQHLNTDSDTEGFLGGEVKGAKNSITDSQMDDEVVYITD 60
DB 1 MEGESTSAVLSGFVLGALAFQHLNTDSDTEGFLGGEVKGAKNSITDSQMDDEVVYITD 60
QY 61 IQYIPCYQLFSFYNSSGGEVNEQALKILSNVKNVGVGKYFRRHSQDQIMTFRERLLHN 120
DB 61 IQYIPCYQLFSFYNSSGGEVNEQALKILSNVKNVGVGKYFRRHSQDQIMTFRERLLHN 120
QY 121 LOEHFQNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLQMSQOLGYK 180
DB 121 LOEHFQNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLQMSQOLGYK 180
QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIQEELKICKVEDEQAV 240
DB 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIQEELKICKVEDEQAV 240
QY 241 DKLVDVNRKLKREIKRGCAQIQAREKNIQKDPENIFLCOALRTPFNSFEFLHSCVMS 300
DB 241 DKLVDVNRKLKREIKRGCAQIQAREKNIQKDPENIFLCOALRTPFNSFEFLHSCVMS 300
QY 301 LKNRHSVSKSSCNVNRHLDVVDNLTLVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360
DB 301 LKNRHSVSKSSCNVNRHLDVVDNLTLVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360
QY 361 RLIDTQDKRSKANTGSSNODKASKMSSPETDEIEIKMGFGFYSRSPTF 409
DB 361 RLIDTQDKRSKANTGSSNODKASKMSSPETDEIEIKMGFGFYSRSPTF 409

RESULT 23
ABR74909
ID ABR74909 standard; protein; 409 AA.
XX
AC ABR74909;
XX
DT 10-SEP-2003 (first entry)
XX
DE Human secreted polypeptide PRO1013, SEQ ID NO:134.
XX
KW Human; PRO; secreted protein; transmembrane protein;
KW extracellular domain; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte proliferation; differentiation; cartilage disorder;
KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;
KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;
KW liver; drug screening; transgenic animal; genetic analysis;
KW antiarthritic; vulnery; gene therapy.
XX
OS Homo sapiens.
XX
XX US2003040056-A1.
XX
PD 27-FEB-2003.
XX
```

PF 21-JUN-2002; 2002US-00176916.  
XX 18-SEP-1997; 97US-0059263P.  
PR 17-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 15-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090567P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090596P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 04-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.



PR	10-SEP-1998;	98US-0099763P.	PR	XX	Human secreted polypeptide PRO1013, SEQ ID NO:134.
PR	10-SEP-1998;	98US-0099812P.	PR	DE	
PR	15-SEP-1998;	98US-0100388P.	PR	XX	
PR	16-SEP-1998;	98US-0100662P.	PR	KW	Human; PRO; secreted protein; transmembrane protein; TNF-alpha;
PR	16-SEP-1998;	98US-0100664P.	PR	KW	extracellular domain; tumour necrosis factor-alpha; cartilage disorder;
PR	16-SEP-1998;	98US-0101751P.	PR	KW	chondrocyte; proliferation; differentiation; cancer; tumour; diagnosis;
PR	16-SEP-1998;	98US-0101933P.	PR	KW	bone disorder; arthritis; sports injury; cancer; tumour; cervix;
PR	17-SEP-1998;	98US-0100683P.	PR	KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;
PR	17-SEP-1998;	98US-0100684P.	PR	KW	liver; drug screening; transgenic animal; genetic analysis;
PR	17-SEP-1998;	98US-0100919P.	PR	KW	antiarthritic; vulnery; gene therapy.
PR	17-SEP-1998;	98US-0100930P.	PR	XX	
PR	18-SEP-1998;	98US-0100849P.	PR	OS	Homo sapiens.
PR	18-SEP-1998;	98US-0101014P.	PR	XX	
PR	18-SEP-1998;	98US-0101069P.	PR	XX	US2003044926-A1.
PR	23-SEP-1998;	98US-0101471P.	PR	PN	
PR	23-SEP-1998;	98US-0101472P.	PR	PD	06-MAR-2003.
PR	23-SEP-1998;	98US-0101475P.	PR	XX	
PR	23-SEP-1998;	98US-0101477P.	PR	PF	26-JUN-2002; 2002US-00183015.
PR	24-SEP-1998;	98US-0101738P.	PR	XX	
PR	24-SEP-1998;	98US-0101739P.	PR	XX	18-SEP-1997; 97US-0059263P.
PR	24-SEP-1998;	98US-0101743P.	PR	PR	18-SEP-1997; 97US-0059266P.
PR	24-SEP-1998;	98US-0101922P.	PR	PR	17-OCT-1997; 97US-0062250P.
PR	25-SEP-1998;	98US-0101786P.	PR	PR	21-OCT-1997; 97US-0063486P.
PR	29-SEP-1998;	98US-0102027P.	PR	PR	21-OCT-1997; 97US-0063120P.
PR	29-SEP-1998;	98US-0102240P.	PR	PR	24-OCT-1997; 97US-0063121P.
PR	29-SEP-1998;	98US-0102330P.	PR	PR	28-OCT-1997; 97US-0063540P.
PR	29-SEP-1998;	98US-0102331P.	PR	PR	28-OCT-1997; 97US-0063541P.
PR	30-SEP-1998;	98US-0102487P.	PR	PR	28-OCT-1997; 97US-0063544P.
PR	30-SEP-1998;	98US-0102570P.	PR	PR	28-OCT-1997; 97US-0063564P.
PR	30-SEP-1998;	98US-0102571P.	PR	PR	29-OCT-1997; 97US-0063734P.
PR	01-OCT-1998;	98US-0102684P.	PR	PR	29-OCT-1997; 97US-0063870P.
PR	01-OCT-1998;	98US-0102687P.	PR	PR	31-OCT-1997; 97US-0064103P.
PR			PR	PR	11-NOV-1997; 97US-0065311P.
	Query Match	100.0%; Score 409; DB 6; Length 409;	PR	PR	21-NOV-1997; 97US-0066120P.
	Best Local Similarity	100.0%; Pred. No. 0;	PR	PR	21-NOV-1997; 97US-0066466P.
	Matches 409; Conservative	0; Mismatches 0; Indels 0; Gaps 0;	PR	PR	24-NOV-1997; 97US-0066772P.
QY	1	MEGETSAVLGSGFVLGALAFQHLNTDSTEGFLGCVKGEAKNITDSQMDVVEVYTIID 60	PR	PR	11-DEC-1997; 97US-0069335P.
DB	1	MEGETSAVLGSGFVLGALAFQHLNTDSTEGFLGCVKGEAKNITDSQMDVVEVYTIID 60	PR	PR	12-DEC-1997; 97US-0069425P.
QY	61	IQKYIPCYQLFSFYNSGVEVNEQALKTLNVKKNVGVGWYKFRHSDQIMTFRRLLHKN 120	PR	PR	17-DEC-1997; 97US-0069870P.
DB	61	IQKYIPCYQLFSFYNSGVEVNEQALKTLNVKKNVGVGWYKFRHSDQIMTFRRLLHKN 120	PR	PR	19-DEC-1997; 97US-0068017P.
QY	121	LOEHFNSQDLVFLLTTPGIIITESCSTHRLSHLYKPKQGLFHRVPLVVANLGMSEQLGYK 180	PR	PR	10-MAR-1998; 98US-0077450P.
DB	121	LOEHFNSQDLVFLLTTPGIIITESCSTHRLSHLYKPKQGLFHRVPLVVANLGMSEQLGYK 180	PR	PR	11-MAR-1998; 98US-0077632P.
QY	181	TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIQBELKSIKCKVEDSEQAV 240	PR	PR	11-MAR-1998; 98US-0077649P.
DB	181	TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIQBELKSIKCKVEDSEQAV 240	PR	PR	20-MAR-1998; 98US-0078886P.
QY	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300	PR	PR	20-MAR-1998; 98US-0078939P.
DB	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300	PR	PR	27-MAR-1998; 98US-0079664P.
QY	301	LKNRHVSKSSCNVNHLDVNDLTLVWZHTDIPASPASTPQIIXKHALDLDLRWQPKRS 360	PR	PR	27-MAR-1998; 98US-0079786P.
DB	301	LKNRHVSKSSCNVNHLDVNDLTLVWZHTDIPASPASTPQIIXKHALDLDLRWQPKRS 360	PR	PR	31-MAR-1998; 98US-0080107P.
QY	361	RLLDTDQKRSKANTGSSNQDKASKVSPETDEIEKMKGFGYRSPTTF 409	PR	PR	31-MAR-1998; 98US-0080194P.
DB	361	RLLDTDQKRSKANTGSSNQDKASKVSPETDEIEKMKGFGYRSPTTF 409	PR	PR	01-APR-1998; 98US-0080327P.
	RESULT 24		PR	PR	01-APR-1998; 98US-0080333P.
	ABR94671		PR	PR	08-APR-1998; 98US-0081049P.
	ID ABR94671 standard; protein; 409 AA.		PR	PR	08-APR-1998; 98US-0081070P.
	XX		PR	PR	09-APR-1998; 98US-0081195P.
	AC ABR94671;		PR	PR	15-APR-1998; 98US-0081838P.
	XX		PR	PR	21-APR-1998; 98US-0082569P.
	DT 13-SEP-2003 (first entry)		PR	PR	21-APR-1998; 98US-0082569P.

Human secreted polypeptide PRO1013, SEQ ID NO:134.

Human; PRO; secreted protein; transmembrane protein; TNF-alpha; extracellular domain; tumour necrosis factor-alpha; cartilage disorder; chondrocyte; proliferation; differentiation; cancer; tumour; diagnosis; bone disorder; arthritis; sports injury; cancer; tumour; cervix; adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix; liver; drug screening; transgenic animal; genetic analysis; antiarthritic; vulnery; gene therapy.

Homo sapiens.

US2003044926-A1.

06-MAR-2003.

26-JUN-2002; 2002US-00183015.

18-SEP-1997; 97US-0059263P.

18-SEP-1997; 97US-0059266P.

17-OCT-1997; 97US-0062250P.

21-OCT-1997; 97US-0063486P.

21-OCT-1997; 97US-0063120P.

24-OCT-1997; 97US-0063121P.

28-OCT-1997; 97US-0063540P.

28-OCT-1997; 97US-0063541P.

28-OCT-1997; 97US-0063544P.

28-OCT-1997; 97US-0063564P.

29-OCT-1997; 97US-0063734P.

29-OCT-1997; 97US-0063870P.

31-OCT-1997; 97US-0064103P.

11-NOV-1997; 97US-0065311P.

21-NOV-1997; 97US-0066120P.

21-NOV-1997; 97US-0066466P.

24-NOV-1997; 97US-0066772P.

11-DEC-1997; 97US-0069335P.

12-DEC-1997; 97US-0069425P.

17-DEC-1997; 97US-0069870P.

19-DEC-1997; 97US-0068017P.

10-MAR-1998; 98US-0077450P.

11-MAR-1998; 98US-0077632P.

11-MAR-1998; 98US-0077649P.

20-MAR-1998; 98US-0078886P.

20-MAR-1998; 98US-0078939P.

27-MAR-1998; 98US-0079664P.

27-MAR-1998; 98US-0079786P.

31-MAR-1998; 98US-0080107P.

31-MAR-1998; 98US-0080194P.

01-APR-1998; 98US-0080327P.

01-APR-1998; 98US-0080333P.

08-APR-1998; 98US-0081049P.

08-APR-1998; 98US-0081070P.

09-APR-1998; 98US-0081195P.

15-APR-1998; 98US-0081838P.

21-APR-1998; 98US-0082569P.

21-APR-1998; 98US-0082569P.

22-APR-1998; 98US-0082704P.

22-APR-1998; 98US-0082797P.

28-APR-1998; 98US-0083322P.

28-APR-1998; 98US-0083495P.

23-APR-1998; 98US-0083496P.

23-APR-1998; 98US-0083499P.

23-APR-1998; 98US-0083559P.

06-MAY-1998; 98US-0084366P.

06-MAY-1998; 98US-0084414P.

07-MAY-1998; 98US-0084639P.

07-MAY-1998; 98US-0084640P.

07-MAY-1998; 98US-0084643P.

15-MAY-1998; 98US-0085579P.

15-MAY-1998; 98US-0085580P.

15-MAY-1998; 98US-0085582P.

15-MAY-1998; 98US-0085700P.

```
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087759P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088203P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088557P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-008876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 24-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090441P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 02-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 15-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100649P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MEGESTSAVLGSGFVLGALAFQHLNLTDSDEGFLLEGEVKEAKNSITDSQMDDEVEVYITD 60
DB 1 MEGESTSAVLGSGFVLGALAFQHLNLTDSDEGFLLEGEVKEAKNSITDSQMDDEVEVYITD 60
QY 61 IQKTYPCYOLFYSFYNSSGSEVNEQALKKILSNVKNVGVYKFRHSDQIMTFERILLHKN 120
DB 61 IQKTYPCYOLFYSFYNSSGSEVNEQALKKILSNVKNVGVYKFRHSDQIMTFERILLHKN 120
QY 121 LOEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVLANLGSQOLGYK 180
DB 121 LOEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVLANLGSQOLGYK 180
QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASIQEELKSI CKKVEDSEQAV 240
DB 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASIQEELKSI CKKVEDSEQAV 240
QY 241 DKLVKDVNRLKKEIEKRGAGIQAAAREKNI QKDPOENIFLCOALRTFFPNSFLHSCVMS 300
DB 241 DKLVKDVNRLKKEIEKRGAGIQAAAREKNI QKDPOENIFLCOALRTFFPNSFLHSCVMS 300
```



CC bioactive molecules to cells expressing PRO polypeptides, for modulating  
 CC biological activities of cells expressing PRO polypeptides, and for  
 CC identifying agonists or antagonists. The polynucleotide sequences  
 CC encoding PRO polypeptides are useful as hybridisation probes, in  
 CC chromosome and gene mapping, in the generation of antisense RNA and DNA,  
 CC in the preparation of PRO polypeptides, for generating transgenic animals  
 CC or knock-out animals, to construct hybridisation probes for mapping the  
 CC gene which encodes the PRO polypeptide, and for the genetic analysis of  
 CC individuals with genetic disorders, in gene therapy, for chromosome  
 CC identification, as chromosome markers, and for generating probes for PCR,  
 CC Northern analysis, Southern analysis and Western analysis. ABU13860-  
 CC ABU14006 represent the human PRO polypeptides of the invention. Note: The  
 CC sequence data for this patent was obtained in electronic format directly  
 CC from the USPTO web site at seqdata.uspto.gov/paipedEntry.html  
 XX  
 XX Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGFLGALAFQHLNTDSTGEGLLGEVKGAKNSITDSQMDVVEVYITD 60  
 Db |||||  
 QY 1 MEGESTSAVLGFLGALAFQHLNTDSTGEGLLGEVKGAKNSITDSQMDVVEVYITD 60  
 Db |||||

QY 61 IQKIYPCYOLFSGFYNSGSEVNEQALKKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120  
 Db |||||

QY 121 LQEHFSNQDLVLLITPSTIITSCSTRLEHSLYKPGKGLHRVPLVAVNIGMSEQLGYK 180  
 Db |||||

QY 121 LQEHFSNQDLVLLITPSTIITSCSTRLEHSLYKPGKGLHRVPLVAVNIGMSEQLGYK 180  
 Db |||||

QY 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMYASIQEELKICKVEDSEQAV 240  
 Db |||||

QY 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMYASIQEELKICKVEDSEQAV 240  
 Db |||||

QY 241 DKLVQDVNKLKREIEKRRGAQIQAAAREKNIQKDPQENIFLCOALTFPPNSEFLHSCVMS 300  
 Db |||||

QY 241 DKLVQDVNKLKREIEKRRGAQIQAAAREKNIQKDPQENIFLCOALTFPPNSEFLHSCVMS 300  
 Db |||||

QY 301 LKNRVKSSCCNVNHLVDVNDLTLWVHTDIPASPASTPQIIKHKALDDDRWQFKRS 360  
 Db |||||

QY 301 LKNRVKSSCCNVNHLVDVNDLTLWVHTDIPASPASTPQIIKHKALDDDRWQFKRS 360  
 Db |||||

QY 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGSEYRSPTF 409  
 Db |||||

QY 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGSEYRSPTF 409  
 Db |||||

RESULT 26  
 ABU85644  
 ID ABU85644 standard; protein; 409 AA.  
 XX  
 AC ABU85644;  
 XX  
 DT '02-JUL-2003 (first entry)  
 XX  
 DE Human PRO polypeptide #67.  
 XX  
 KW Human; PRO; secreted polypeptide; transmembrane polypeptide;  
 KW tumour necrosis factor alpha; TNF-alpha; chondrocyte cell; tumour;  
 KW cytostatic.  
 XX  
 OS Homo sapiens.  
 XX  
 PN US2003036140-A1.  
 XX  
 PD 20-FEB-2003.  
 XX  
 PF 01-JUL-2002; 2002US-00187588.  
 XX  
 PR 26-JUN-1998; 98US-00105413.

PR 16-SEP-1998; 98WO-US019330.  
 PR 07-OCT-1998; 98US-00168978.  
 PR 07-OCT-1998; 98WO-US021141.  
 PR 06-NOV-1998; 98US-00187368.  
 PR 01-DEC-1998; 98WO-US025108.  
 PR 07-DEC-1998; 98US-00202054.  
 PR 03-MAR-1999; 99US-00254311.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 14-MAY-1999; 99US-00311832.  
 PR 14-MAY-1999; 99WO-US010733.  
 PR 02-JUN-1999; 99WO-US012252.  
 PR 25-AUG-1999; 99US-00380137.  
 PR 25-AUG-1999; 99US-00380138.  
 PR 25-AUG-1999; 99US-00380139.  
 PR 25-AUG-1999; 99US-00380142.  
 PR 01-SEP-1999; 99WO-US020111.  
 PR 15-SEP-1999; 99WO-US021090.  
 PR 18-OCT-1999; 99US-00403297.  
 PR 12-NOV-1999; 99US-00423844.  
 PR 01-DEC-1999; 99WO-US028301.  
 PR 02-DEC-1999; 99WO-US028551.  
 PR 30-DEC-1999; 99WO-US031274.  
 PR 05-JAN-2000; 2000WO-US000219.  
 PR 18-FEB-2000; 2000WO-US004341.  
 PR 18-FEB-2000; 2000WO-US004342.  
 PR 24-FEB-2000; 2000WO-US004414.  
 PR 24-FEB-2000; 2000WO-US005004.  
 PR 01-MAR-2000; 2000WO-US005601.  
 PR 02-MAR-2000; 2000WO-US005841.  
 PR 13-MAR-2000; 2000WO-US008884.  
 PR 30-MAR-2000; 2000WO-US008439.  
 PR 17-MAY-2000; 2000WO-US013705.  
 PR 22-MAY-2000; 2000WO-US014042.  
 PR 30-MAY-2000; 2000WO-US014941.  
 PR 02-JUN-2000; 2000WO-US015264.  
 PR 28-JUL-2000; 2000WO-US020710.  
 PR 22-AUG-2000; 2000US-00644848.  
 PR 28-AUG-2000; 2000WO-US023328.  
 PR 18-SEP-2000; 2000US-00664610.  
 PR 18-SEP-2000; 2000US-00665350.  
 PR 08-NOV-2000; 2000US-00709238.  
 PR 08-NOV-2000; 2000WO-US030952.  
 PR 01-DEC-2000; 2000WO-US032678.  
 PR 20-DEC-2000; 2000US-00747259.  
 PR 20-DEC-2000; 2000WO-US034956.  
 PR 28-FEB-2001; 2001WO-US006520.  
 PR 22-MAR-2001; 2001US-00816744.  
 PR 10-MAY-2001; 2001US-00854208.  
 PR 10-MAY-2001; 2001US-00854280.  
 PR 25-MAY-2001; 2001US-00866028.  
 PR 01-JUN-2001; 2001WO-US017800.  
 PR 05-JUN-2001; 2001US-00874503.  
 PR 20-JUN-2001; 2001WO-US019692.  
 PR 09-JUL-2001; 2001WO-US021066.  
 PR 29-JUL-2001; 2001WO-US021735.  
 PR 18-JUL-2001; 2001US-00908827.  
 PR 30-JUL-2001; 2001US-00918585.  
 PR 06-AUG-2001; 2001US-00924419.  
 PR 13-AUG-2001; 2001US-00929404.  
 PR 16-AUG-2001; 2001US-00931836.  
 PR 28-AUG-2001; 2001US-00941992.  
 PR 29-AUG-2001; 2001WO-US027099.  
 PR 04-SEP-2001; 2001US-00946374.  
 PR 15-JAN-2002; 2002US-00052586.  
 XX  
 FA (GETH ) GENENTECH INC.  
 XX  
 PI Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;  
 PI Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;  
 XX  
 XX WPI; 2003-332028/31.  
 DR N-PSDB; ACA72837.  
 XX

PT Three hundred and five nucleic acids encoding PRO polypeptides, useful  
PT for the manufacture of a medicament for diagnosing or treating tumor.  
XX  
XX  
PS Claim 11; Fig 134; 707pp; English.  
XX  
XX The invention relates to human PRO polypeptides (secreted and  
CC transmembrane polypeptides) and the PRO polynucleotides encoding them.  
CC The invention also relates to a method for stimulating the release of  
CC tumour necrosis factor alpha (TNF-alpha) from human blood by contacting  
CC the blood with a sequence of the invention, a method for stimulating the  
CC proliferation or differentiation of chondrocyte cells by contacting the  
CC cells with a PRO polypeptide and a method for detecting the presence of a  
CC tumour in a mammal. The polypeptides and polynucleotides are useful for  
CC the manufacture of a medicament for diagnosing or treating a tumour in a  
CC mammal. Sequences ABU85578-ABU85882 represent human PRO polypeptides of  
CC the invention. Note: The sequence data for this patent is also available  
CC in electronic format from USPTO at [seqdata.uspto.gov/sequence.html](http://seqdata.uspto.gov/sequence.html).  
XX  
XX Sequence 409 AA;  
SQ

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGFVLGALAQHLNTSDTEGELLGEVKGAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGSGFVLGALAQHLNTSDTEGELLGEVKGAKNSITDSQMDVVEVYITD 60

QY 61 IQKIPCYQLFSFYNSGVEVNEQALKILSNKKNVGVWYKPRHSDQIMTFRERLLHKN 120  
Db 61 IQKIPCYQLFSFYNSGVEVNEQALKILSNKKNVGVWYKPRHSDQIMTFRERLLHKN 120

QY 121 LOEHFNSQDLVFLLLTTSITSCSTHRLHSLYKPKGLFHRVPLVAVANLQMSQLGVK 180  
Db 121 LOEHFNSQDLVFLLLTTSITSCSTHRLHSLYKPKGLFHRVPLVAVANLQMSQLGVK 180

QY 181 TVSGSCMSTGFSRAVQTHSKFPEEDGSLKEVHKINEMVASIQEELKSIKCKVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSKFPEEDGSLKEVHKINEMVASIQEELKSIKCKVEDSEQAV 240

QY 241 DKLVKDVNRLKRETKERGAQIQAAEKNIQKDPQENIFLQALRTFFNFSEFLSCVMS 300  
Db 241 DKLVKDVNRLKRETKERGAQIQAAEKNIQKDPQENIFLQALRTFFNFSEFLSCVMS 300

QY 301 LKXNHVSKSCNHNHLDVVDNLTLMVEHTDIPASPASTPQIIKHKALDLDLDRQFKRS 360  
Db 301 LKXNHVSKSCNHNHLDVVDNLTLMVEHTDIPASPASTPQIIKHKALDLDLDRQFKRS 360

QY 361 RLLDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409  
Db 361 RLLDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409

RESULT 27  
ABU98804  
ID ABU98804 standard; protein; 409 AA.  
XX  
XX AC ABU98804;  
XX  
XX DI 01-AUG-2003 (first entry)  
XX  
XX DE Novel human secreted and transmembrane protein PRO1013.  
XX  
XX KW Human; secreted and transmembrane protein; PRO; cytostatic; gene therapy;  
KW chondrocyte stimulator; tumour; adrenal tumour; lung tumour;  
KW colon tumour; breast tumour; prostate tumour; rectal tumour;  
KW cervical tumour; liver tumour; TNF-alpha release;  
KW tumour necrosis factor alpha release; chondrocyte cell proliferation;  
KW chondrocyte cell differentiation; pharmaceutical; diagnostic; biosensor;  
bioreactor.  
XX  
XX OS Homo sapiens.  
XX

PN US2003013153-A1.  
XX  
PD 16-JAN-2003.  
XX  
PF 19-JUN-2002; 2002US-00175737.  
XX  
XX 18-SEP-1997; 97US-0059263P.  
XX 18-SEP-1997; 97US-0059266P.  
XX 17-OCT-1997; 97US-0062480P.  
XX 21-OCT-1997; 97US-0063486P.  
XX 24-OCT-1997; 97US-0063120P.  
XX 24-OCT-1997; 97US-0063121P.  
XX 28-OCT-1997; 97US-0063540P.  
XX 28-OCT-1997; 97US-0063541P.  
XX 28-OCT-1997; 97US-0063544P.  
XX 28-OCT-1997; 97US-0063546P.  
XX 29-OCT-1997; 97US-0063724P.  
XX 31-OCT-1997; 97US-0063870P.  
XX 31-OCT-1997; 97US-0064103P.  
XX 13-NOV-1997; 97US-0065311P.  
XX 21-NOV-1997; 97US-0066120P.  
XX 24-NOV-1997; 97US-0066466P.  
XX 24-NOV-1997; 97US-0066772P.  
XX 11-DEC-1997; 97US-0069335P.  
XX 12-DEC-1997; 97US-0069425P.  
XX 17-DEC-1997; 97US-0069870P.  
XX 18-DEC-1997; 97US-0068017P.  
XX 10-MAR-1998; 98US-0077450P.  
XX 11-MAR-1998; 98US-0077632P.  
XX 11-MAR-1998; 98US-0077649P.  
XX 20-MAR-1998; 98US-0078886P.  
XX 20-MAR-1998; 98US-0078939P.  
XX 27-MAR-1998; 98US-0079664P.  
XX 27-MAR-1998; 98US-0079786P.  
XX 31-MAR-1998; 98US-0080107P.  
XX 31-MAR-1998; 98US-0080194P.  
XX 01-APR-1998; 98US-0080327P.  
XX 01-APR-1998; 98US-0080333P.  
XX 08-APR-1998; 98US-0081049P.  
XX 08-APR-1998; 98US-0081070P.  
XX 09-APR-1998; 98US-0081195P.  
XX 15-APR-1998; 98US-0081838P.  
XX 21-APR-1998; 98US-0082568P.  
XX 21-APR-1998; 98US-0082569P.  
XX 22-APR-1998; 98US-0082704P.  
XX 22-APR-1998; 98US-0082797P.  
XX 28-APR-1998; 98US-0083322P.  
XX 29-APR-1998; 98US-0083495P.  
XX 29-APR-1998; 98US-0083496P.  
XX 29-APR-1998; 98US-0083499P.  
XX 29-APR-1998; 98US-0083559P.  
XX 05-MAY-1998; 98US-0084366P.  
XX 06-MAY-1998; 98US-0084414P.  
XX 07-MAY-1998; 98US-0084639P.  
XX 07-MAY-1998; 98US-0084640P.  
XX 15-MAY-1998; 98US-0084643P.  
XX 15-MAY-1998; 98US-0085579P.  
XX 15-MAY-1998; 98US-0085800P.  
XX 15-MAY-1998; 98US-0085828P.  
XX 15-MAY-1998; 98US-0085700P.  
XX 18-MAY-1998; 98US-0086023P.  
XX 18-MAY-1998; 98US-0086392P.  
XX 22-MAY-1998; 98US-0086486P.  
XX 22-MAY-1998; 98US-0087098P.  
XX 28-MAY-1998; 98US-0087208P.  
XX 02-JUN-1998; 98US-0087609P.  
XX 02-JUN-1998; 98US-0087759P.  
XX 03-JUN-1998; 98US-0087827P.  
XX 04-JUN-1998; 98US-0088025P.  
XX 04-JUN-1998; 98US-0088028P.  
XX 04-JUN-1998; 98US-0088029P.  
XX 04-JUN-1998; 98US-0088033P.  
XX 04-JUN-1998; 98US-0088326P.



XX AC ABU98019;  
XX DT 30-JUL-2003 (first entry)  
XX DE Novel human secreted and transmembrane protein PRO1013.  
XX KW Human; secreted and transmembrane protein; PRO; Cytostatic; gene therapy;  
KW chondrocyte stimulator; tumour; adrenal tumour; lung tumour;  
KW colon tumour; breast tumour; prostate tumour; rectal tumour;  
KW cervical tumour; liver tumour; chromosome identification.  
XX OS Homo sapiens.  
XX PN US2003017544-A1.  
XX PD 23-JAN-2003.  
XX DF 21-JUN-2002; 2002US-00176915.  
XX 18-SEP-1997; 97US-0059263P.  
XX 18-SEP-1997; 97US-0059266P.  
XX 17-OCT-1997; 97US-0062250P.  
XX 21-OCT-1997; 97US-0063486P.  
XX 24-OCT-1997; 97US-0063120P.  
XX 24-OCT-1997; 97US-0063121P.  
XX 28-OCT-1997; 97US-0063540P.  
XX 28-OCT-1997; 97US-0063541P.  
XX 28-OCT-1997; 97US-0063544P.  
XX 28-OCT-1997; 97US-0063564P.  
XX 29-OCT-1997; 97US-0063734P.  
XX 31-OCT-1997; 97US-0063870P.  
XX 31-OCT-1997; 97US-0064103P.  
XX 13-NOV-1997; 97US-0065311P.  
XX 21-NOV-1997; 97US-0066120P.  
XX 24-NOV-1997; 97US-0066466P.  
XX 24-NOV-1997; 97US-0066772P.  
XX 11-DEC-1997; 97US-0069335P.  
XX 12-DEC-1997; 97US-0069425P.  
XX 17-DEC-1997; 97US-0069870P.  
XX 18-DEC-1997; 97US-0068017P.  
XX 10-MAR-1998; 98US-0077450P.  
XX 11-MAR-1998; 98US-0077632P.  
XX 11-MAR-1998; 98US-0077649P.  
XX 20-MAR-1998; 98US-0078886P.  
XX 20-MAR-1998; 98US-0078939P.  
XX 27-MAR-1998; 98US-0079664P.  
XX 27-MAR-1998; 98US-0079786P.  
XX 31-MAR-1998; 98US-0080107P.  
XX 31-MAR-1998; 98US-0080194P.  
XX 01-APR-1998; 98US-0080327P.  
XX 01-APR-1998; 98US-0080333P.  
XX 08-APR-1998; 98US-0081049P.  
XX 08-APR-1998; 98US-0081070P.  
XX 09-APR-1998; 98US-0081195P.  
XX 15-APR-1998; 98US-0081838P.  
XX 21-APR-1998; 98US-0082568P.  
XX 21-APR-1998; 98US-0082569P.  
XX 22-APR-1998; 98US-0082704P.  
XX 22-APR-1998; 98US-0082797P.  
XX 28-APR-1998; 98US-0083322P.  
XX 29-APR-1998; 98US-0083495P.  
XX 29-APR-1998; 98US-0083496P.  
XX 29-APR-1998; 98US-0083499P.  
XX 29-APR-1998; 98US-0083559P.  
XX 05-MAY-1998; 98US-0084366P.  
XX 06-MAY-1998; 98US-0084414P.  
XX 07-MAY-1998; 98US-0084439P.  
XX 07-MAY-1998; 98US-0084640P.  
XX 07-MAY-1998; 98US-0084643P.  
XX 15-MAY-1998; 98US-0085579P.  
XX 15-MAY-1998; 98US-0085580P.  
XX 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087209P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091259P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.

PR	17-AUG-1998;	98US-0096897P.	QY	241	DKLVQDVNRLKREIEKRGAGIQAAAEKNIQKPOENIFLCQALRTFFPNSEFLHSCVMS	300
PR	18-AUG-1998;	98US-0096949P.	Db	241	DKLVQDVNRLKREIEKRGAGIQAAAEKNIQKPOENIFLCQALRTFFPNSEFLHSCVMS	300
PR	18-AUG-1998;	98US-0096959P.	QY	301	LKNRHVSKSCNHNHLDVVVDNLTLMVEHTDIPASGASTPQIKKHALDLDLDRWQPKRS	360
PR	26-AUG-1998;	98US-0097022P.	Db	301	LKNRHVSKSCNHNHLDVVVDNLTLMVEHTDIPASGASTPQIKKHALDLDLDRWQPKRS	360
PR	26-AUG-1998;	98US-0097952P.	QY	361	RLDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYSRSPTF	409
PR	26-AUG-1998;	98US-0097955P.	Db	361	RLDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYSRSPTF	409
PR	26-AUG-1998;	98US-0097971P.	QY			
PR	26-AUG-1998;	98US-0097974P.	Db			
PR	26-AUG-1998;	98US-0098014P.				
PR	01-SEP-1998;	98US-0098716P.				
PR	01-SEP-1998;	98US-0098723P.				
PR	02-SEP-1998;	98US-0098803P.				
PR	02-SEP-1998;	98US-0098821P.				
PR	02-SEP-1998;	98US-0098943P.				
PR	09-SEP-1998;	98US-0099602P.				
PR	10-SEP-1998;	98US-0099741P.				
PR	10-SEP-1998;	98US-0099754P.				
PR	10-SEP-1998;	98US-0099763P.				
PR	15-SEP-1998;	98US-0099812P.				
PR	16-SEP-1998;	98US-0100662P.				
PR	16-SEP-1998;	98US-0100664P.				
PR	16-SEP-1998;	98US-0101751P.				
PR	16-SEP-1998;	98US-0101751P.				
PR	17-SEP-1998;	98US-0101933P.				
PR	17-SEP-1998;	98US-0100683P.				
PR	17-SEP-1998;	98US-0100684P.				
PR	17-SEP-1998;	98US-0100919P.				
PR	17-SEP-1998;	98US-0100930P.				
PR	18-SEP-1998;	98US-0100849P.				
PR	18-SEP-1998;	98US-0101014P.				
PR	18-SEP-1998;	98US-0101068P.				
PR	23-SEP-1998;	98US-0101471P.				
PR	23-SEP-1998;	98US-0101472P.				
PR	23-SEP-1998;	98US-0101475P.				
PR	23-SEP-1998;	98US-0101477P.				
PR	24-SEP-1998;	98US-0101738P.				
PR	24-SEP-1998;	98US-0101739P.				
PR	24-SEP-1998;	98US-0101743P.				
PR	24-SEP-1998;	98US-0101822P.				
PR	24-SEP-1998;	98US-0101822P.				
PR	25-SEP-1998;	98US-0101786P.				
PR	25-SEP-1998;	98US-0102207P.				
PR	25-SEP-1998;	98US-0102240P.				
PR	29-SEP-1998;	98US-0102330P.				
PR	29-SEP-1998;	98US-0102331P.				
PR	30-SEP-1998;	98US-0102487P.				
PR	30-SEP-1998;	98US-0102570P.				
PR	30-SEP-1998;	98US-0102571P.				
PR	01-OCT-1998;	98US-0102684P.				
PR	01-OCT-1998;	98US-0102687P.				
PR	02-OCT-1998;	98US-0102965P.				
PR	06-OCT-1998;	98US-0103258P.				
PR	06-OCT-1998;	98US-0103449P.				
Query Match 100.0%; Score 409; DB 6; Length 409;						
Best Local Similarity 100.0%; Pred. No. 0;						
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;						
QY	1	MEGESTSAVLGSFVLGALAFQHLNTSDTEGFLGVEKGEAKNSITDSOMDDVEVVYIID 60				
Db	1	MEGESTSAVLGSFVLGALAFQHLNTSDTEGFLGVEKGEAKNSITDSOMDDVEVVYIID 60				
QY	61	IQYIPCYQLFSFYNSGGEVNEQALKKILSNVKNVGVGWYKFRHSDQIMTFRERLLHKN 120				
Db	61	IQYIPCYQLFSFYNSGGEVNEQALKKILSNVKNVGVGWYKFRHSDQIMTFRERLLHKN 120				
QY	121	LOEHFNSQDVLFIILLTPSIITSCSTRHLEHSYKPKQGLFHRVPLVANLGMSEOLGYK 180				
Db	121	LOEHFNSQDVLFIILLTPSIITSCSTRHLEHSYKPKQGLFHRVPLVANLGMSEOLGYK 180				
QY	181	TVSGSCNSTGFSRAVQTHSSKFFEEGSLKEVHKINEMVASYLQEEELKSIKCKVDESEQAV 240				
Db	181	TVSGSCNSTGFSRAVQTHSSKFFEEGSLKEVHKINEMVASYLQEEELKSIKCKVDESEQAV 240				

RESULT 29  
ABU91725  
ID ABU91725 standard; protein; 409 AA.  
AC ABU91725;  
XX  
DT 11-AUG-2003 (first entry)  
XX  
DE Novel human secreted and transmembrane protein PRO1013.  
XX  
KW Human; gene therapy; chromosome identification; tissue typing.  
XX  
OS Homo sapiens.  
XX  
PN US2003027277-A1.  
XX  
PD 06-FEB-2003.  
XX  
PF 21-JUN-2002; 2002US-00176985.  
XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 11-DEC-1997; 97US-0066772P.  
PR 12-DEC-1997; 97US-0069335P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.



PR	22-APR-1998;	98US-0082797P.	PR	01-JUL-1998;	98US-0091544P.
PR	28-APR-1998;	98US-0083322P.	PR	02-JUL-1998;	98US-0091478P.
PR	29-APR-1998;	98US-0083495P.	PR	02-JUL-1998;	98US-0091486P.
PR	29-APR-1998;	98US-0083496P.	PR	02-JUL-1998;	98US-0091626P.
PR	29-APR-1998;	98US-0083499P.	PR	02-JUL-1998;	98US-0091628P.
PR	29-APR-1998;	98US-0083559P.	PR	02-JUL-1998;	98US-0091633P.
PR	05-MAY-1998;	98US-0084366P.	PR	24-JUL-1998;	98US-0094006P.
PR	06-MAY-1998;	98US-0084414P.	PR	04-AUG-1998;	98US-0095282P.
PR	07-MAY-1998;	98US-0084639P.	PR	10-AUG-1998;	98US-0095988P.
PR	07-MAY-1998;	98US-0084640P.	PR	10-AUG-1998;	98US-0096011P.
PR	07-MAY-1998;	98US-0084643P.	PR	17-AUG-1998;	98US-0096757P.
PR	15-MAY-1998;	98US-0085579P.	PR	17-AUG-1998;	98US-0096766P.
PR	15-MAY-1998;	98US-0085580P.	PR	17-AUG-1998;	98US-0096891P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096897P.
PR	15-MAY-1998;	98US-0085700P.	PR	18-AUG-1998;	98US-0096849P.
PR	18-MAY-1998;	98US-0086023P.	PR	18-AUG-1998;	98US-0096559P.
PR	22-MAY-1998;	98US-0086392P.	PR	18-AUG-1998;	98US-0097022P.
PR	22-MAY-1998;	98US-0086486P.	PR	25-AUG-1998;	98US-0097522P.
PR	28-MAY-1998;	98US-0087098P.	PR	26-AUG-1998;	98US-0097954P.
PR	28-MAY-1998;	98US-0087208P.	PR	26-AUG-1998;	98US-0097971P.
PR	02-JUN-1998;	98US-0087609P.	PR	26-AUG-1998;	98US-0097974P.
PR	02-JUN-1998;	98US-0087753P.	PR	26-AUG-1998;	98US-0098014P.
PR	03-JUN-1998;	98US-0087827P.	PR	01-SEP-1998;	98US-0098716P.
PR	04-JUN-1998;	98US-0088025P.	PR	01-SEP-1998;	98US-0098723P.
PR	04-JUN-1998;	98US-0088028P.	PR	02-SEP-1998;	98US-0098803P.
PR	04-JUN-1998;	98US-0088029P.	PR	02-SEP-1998;	98US-0098843P.
PR	04-JUN-1998;	98US-0088033P.	PR	03-SEP-1998;	98US-0098602P.
PR	04-JUN-1998;	98US-0088328P.	PR	10-SEP-1998;	98US-0099741P.
PR	05-JUN-1998;	98US-0088167P.	PR	10-SEP-1998;	98US-0099754P.
PR	05-JUN-1998;	98US-0088202P.	PR	10-SEP-1998;	98US-0099763P.
PR	05-JUN-1998;	98US-0088212P.	PR	15-SEP-1998;	98US-0099812P.
PR	05-JUN-1998;	98US-0088217P.	PR	15-SEP-1998;	98US-0100388P.
PR	09-JUN-1998;	98US-0088555P.	PR	16-SEP-1998;	98US-0100652P.
PR	10-JUN-1998;	98US-0088722P.	PR	16-SEP-1998;	98US-0100664P.
PR	10-JUN-1998;	98US-0088738P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088740P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088811P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088824P.	PR	17-SEP-1998;	98US-0100683P.
PR	10-JUN-1998;	98US-0088825P.	PR	17-SEP-1998;	98US-0100684P.
PR	10-JUN-1998;	98US-0088826P.	PR	17-SEP-1998;	98US-0100919P.
PR	11-JUN-1998;	98US-0088861P.	PR	17-SEP-1998;	98US-0100930P.
PR	11-JUN-1998;	98US-0088863P.	PR	18-SEP-1998;	98US-0100849P.
PR	11-JUN-1998;	98US-0088876P.	PR	18-SEP-1998;	98US-0101014P.
PR	12-JUN-1998;	98US-0089090P.	PR	18-SEP-1998;	98US-0101068P.
PR	16-JUN-1998;	98US-0089512P.	PR	18-SEP-1998;	98US-0101471P.
PR	16-JUN-1998;	98US-0089514P.	PR	23-SEP-1998;	98US-0101472P.
PR	17-JUN-1998;	98US-0089538P.	PR	23-SEP-1998;	98US-0101475P.
PR	17-JUN-1998;	98US-0089539P.	PR	23-SEP-1998;	98US-0101477P.
PR	17-JUN-1998;	98US-0089539P.	PR	24-SEP-1998;	98US-0101738P.
PR	18-JUN-1998;	98US-0089539P.	PR	24-SEP-1998;	98US-0101739P.
PR	19-JUN-1998;	98US-0089539P.	PR	24-SEP-1998;	98US-0101743P.
PR	22-JUN-1998;	98US-0090246P.	PR	24-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090252P.	PR	25-SEP-1998;	98US-0101786P.
PR	22-JUN-1998;	98US-0090254P.	PR	25-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090429P.	PR	29-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090435P.	PR	29-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090444P.	PR	29-SEP-1998;	98US-0102330P.
PR	24-JUN-1998;	98US-0090461P.	PR	29-SEP-1998;	98US-0102331P.
PR	24-JUN-1998;	98US-0090535P.	PR	30-SEP-1998;	98US-0102487P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102570P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102571P.
PR	25-JUN-1998;	98US-0090676P.	PR	30-SEP-1998;	98US-0102684P.
PR	25-JUN-1998;	98US-0090688P.	PR	01-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090688P.	PR	01-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090690P.	PR	02-OCT-1998;	98US-0102965P.
PR	25-JUN-1998;	98US-0090694P.	PR	06-OCT-1998;	98US-0103258P.
PR	25-JUN-1998;	98US-0090695P.	PR	06-OCT-1998;	98US-0103258P.
PR	25-JUN-1998;	98US-0090696P.	PR	07-OCT-1998;	98US-00168978.
PR	26-JUN-1998;	98US-00105413.	PR	07-OCT-1998;	98US-0103395P.
PR	26-JUN-1998;	98US-0090862P.	PR	07-OCT-1998;	98US-0103401P.
PR	26-JUN-1998;	98US-0090863P.			
PR	26-JUN-1998;	98US-0091010P.			
PR	01-JUL-1998;	98US-0091359P.			

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;

Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
Qy	1	MEGETSAVLSGFLGALAFQHLNATDSDETEGFLGVEKGEAKNITDSQMDVVEVYTIID 60	
Db	1	MEGETSAVLSGFLGALAFQHLNATDSDETEGFLGVEKGEAKNITDSQMDVVEVYTIID 60	
Qy	61	IQKYIPCQLFSFYNSGSEVNEQALKILSNVKNVGVGYKFRHSDQIMTFRERLLHKN 120	
Db	61	IQKYIPCQLFSFYNSGSEVNEQALKILSNVKNVGVGYKFRHSDQIMTFRERLLHKN 120	
Qy	121	LOEHFSNQDLVLLITPTIITSCSTHRLHSLYKPKGLFHRVPLVVAINGMSEQLGYK 180	
Db	121	LOEHFSNQDLVLLITPTIITSCSTHRLHSLYKPKGLFHRVPLVVAINGMSEQLGYK 180	
Qy	181	TVSGSCMSTGPRAVQTHSSKFEEDGSLKEVHKINEMVASYLOELKICKVEDSEQAV 240	
Db	181	TVSGSCMSTGPRAVQTHSSKFEEDGSLKEVHKINEMVASYLOELKICKVEDSEQAV 240	
Qy	241	DKLVKDVNRLKREIEKRGQAQIAAREKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300	
Db	241	DKLVKDVNRLKREIEKRGQAQIAAREKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300	
Qy	301	LKNRVKSSSCNHNHLDVVDNLTLWVEHTDIPEASPASTPQIIKHKALDDDRWQFKRS 360	
Db	301	LKNRVKSSSCNHNHLDVVDNLTLWVEHTDIPEASPASTPQIIKHKALDDDRWQFKRS 360	
Qy	361	RLLDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409	
Db	361	RLLDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409	

RESULT 30

ABU89418

ID ABU89418 standard; protein; 409 AA.

XX AC ABU89418;

XX DT 09-JUL-2003 (first entry)

XX DE Human PRO polypeptide #67.

XX Human; PRO polypeptide; secreted protein; transmembrane protein; chromosome mapping; gene mapping; tumour; adrenal; lung; colon; breast; prostate; rectal; cervical; liver; cancer; TNF-alpha; tumour necrosis factor-alpha; proliferation; differentiation; chondrocyte cell; bone disorder; cartilage disorder; sports injury; arthritis; cytostatic; antiarthritic; osteopathic.

XX OS Homo sapiens.

XX PN US2003036141-A1.

XX PD 20-FEB-2003.

XX PF 01-JUL-2002; 2002US-00187597.

XX PR 18-SEP-1997; 97US-0059263P.

XX PR 18-SEP-1997; 97US-0059266P.

XX PR 21-OCT-1997; 97US-0062250P.

XX PR 24-OCT-1997; 97US-0063120P.

XX PR 24-OCT-1997; 97US-0063121P.

XX PR 28-OCT-1997; 97US-0063540P.

XX PR 28-OCT-1997; 97US-0063541P.

XX PR 28-OCT-1997; 97US-0063544P.

XX PR 28-OCT-1997; 97US-0063564P.

XX PR 31-OCT-1997; 97US-0063734P.

XX PR 31-OCT-1997; 97US-0063870P.

XX PR 13-NOV-1997; 97US-0064103P.

XX PR 21-NOV-1997; 97US-0065311P.

XX PR 24-NOV-1997; 97US-0066120P.

XX PR 24-NOV-1997; 97US-0066466P.

XX PR 24-NOV-1997; 97US-0066772P.

PR	11-DEC-1997;	97US-0069335P.
PR	12-DEC-1997;	97US-0069425P.
PR	17-DEC-1997;	97US-0069870P.
PR	18-DEC-1997;	97US-0068017P.
PR	10-MAR-1998;	98US-0077450P.
PR	11-MAR-1998;	98US-0077632P.
PR	11-MAR-1998;	98US-0077649P.
PR	20-MAR-1998;	98US-0078886P.
PR	20-MAR-1998;	98US-0078939P.
PR	27-MAR-1998;	98US-0079664P.
PR	27-MAR-1998;	98US-0079786P.
PR	31-MAR-1998;	98US-0080107P.
PR	31-MAR-1998;	98US-0080194P.
PR	01-APR-1998;	98US-0080327P.
PR	01-APR-1998;	98US-0080333P.
PR	08-APR-1998;	98US-0081049P.
PR	08-APR-1998;	98US-0081070P.
PR	09-APR-1998;	98US-0081195P.
PR	15-APR-1998;	98US-0081838P.
PR	21-APR-1998;	98US-0082568P.
PR	21-APR-1998;	98US-0082569P.
PR	22-APR-1998;	98US-0082704P.
PR	22-APR-1998;	98US-0082797P.
PR	28-APR-1998;	98US-0083322P.
PR	29-APR-1998;	98US-0083495P.
PR	29-APR-1998;	98US-0083496P.
PR	29-APR-1998;	98US-0083499P.
PR	29-APR-1998;	98US-0083559P.
PR	05-MAY-1998;	98US-0084366P.
PR	06-MAY-1998;	98US-0084414P.
PR	07-MAY-1998;	98US-0084639P.
PR	07-MAY-1998;	98US-0084640P.
PR	07-MAY-1998;	98US-0084643P.
PR	15-MAY-1998;	98US-0085579P.
PR	15-MAY-1998;	98US-0085580P.
PR	15-MAY-1998;	98US-0085582P.
PR	15-MAY-1998;	98US-0085700P.
PR	18-MAY-1998;	98US-0086023P.
PR	22-MAY-1998;	98US-0086392P.
PR	22-MAY-1998;	98US-0086486P.
PR	28-MAY-1998;	98US-0087098P.
PR	28-MAY-1998;	98US-0087208P.
PR	02-JUN-1998;	98US-0087609P.
PR	02-JUN-1998;	98US-0087759P.
PR	03-JUN-1998;	98US-0087827P.
PR	04-JUN-1998;	98US-0088025P.
PR	04-JUN-1998;	98US-0088028P.
PR	04-JUN-1998;	98US-0088029P.
PR	04-JUN-1998;	98US-0088033P.
PR	04-JUN-1998;	98US-0088326P.
PR	05-JUN-1998;	98US-0088167P.
PR	05-JUN-1998;	98US-0088202P.
PR	05-JUN-1998;	98US-0088212P.
PR	05-JUN-1998;	98US-0088217P.
PR	09-JUN-1998;	98US-0088655P.
PR	10-JUN-1998;	98US-0088722P.
PR	10-JUN-1998;	98US-0088738P.
PR	10-JUN-1998;	98US-0088740P.
PR	10-JUN-1998;	98US-0088811P.
PR	10-JUN-1998;	98US-0088824P.
PR	10-JUN-1998;	98US-0088825P.
PR	10-JUN-1998;	98US-0088826P.
PR	11-JUN-1998;	98US-0088861P.
PR	11-JUN-1998;	98US-0088863P.
PR	11-JUN-1998;	98US-0088876P.
PR	12-JUN-1998;	98US-0089090P.
PR	12-JUN-1998;	98US-0089105P.
PR	16-JUN-1998;	98US-0089512P.
PR	16-JUN-1998;	98US-0089514P.
PR	17-JUN-1998;	98US-0089538P.
PR	17-JUN-1998;	98US-0089598P.
PR	17-JUN-1998;	98US-0089653P.
PR	18-JUN-1998;	98US-0089908P.

PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096013P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98WO-US019330.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.

PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 25-SEP-1998; 98US-0102207P.  
PR 25-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 29-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102684P.  
PR 01-OCT-1998; 98US-0102687P.  
PR 02-OCT-1998; 98US-0102965P.  
PR 02-OCT-1998; 98US-0102965P.  
Query Match. 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDETEGFLGGEVKEAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDETEGFLGGEVKEAKNSITDSQMDVVEVYITD 60  
Qy 61 IQKIYPCYOLFSGFYNSGGEVNEQALKILSNVKNVGVYKFRHSDDQIMTFRERLLHKN 120  
Db 61 IQKIYPCYOLFSGFYNSGGEVNEQALKILSNVKNVGVYKFRHSDDQIMTFRERLLHKN 120  
Qy 121 LQEHFSNODLVLLTPSIITSCSTRLEHSLYKPKGLFHRVPLVAVNLGSEOLGYK 180  
Db 121 LQEHFSNODLVLLTPSIITSCSTRLEHSLYKPKGLFHRVPLVAVNLGSEOLGYK 180  
Qy 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMYASIQEELKSTCKKVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMYASIQEELKSTCKKVEDSEQAV 240  
Qy 241 DKLVKVNRLKREIEYKRGAGQOAREKNIQKDPQENIFLCALRTFFPNSFLHSCVMS 300  
Db 241 DKLVKVNRLKREIEYKRGAGQOAREKNIQKDPQENIFLCALRTFFPNSFLHSCVMS 300  
Qy 301 LKNRHYKSSCNYNHLVDVNDLTLVHTDIPEASFPSTPQIIKHKALDLDLDRWQFKRS 360  
Db 301 LKNRHYKSSCNYNHLVDVNDLTLVHTDIPEASFPSTPQIIKHKALDLDLDRWQFKRS 360  
Qy 361 RLLEDQDKRSKANTGSSNQDKASKMSPTDEIEKMGKGFGEYSRPTF 409  
Db 361 RLLEDQDKRSKANTGSSNQDKASKMSPTDEIEKMGKGFGEYSRPTF 409  
RESULT 31  
ABU86259 ID ABU86259 standard; protein; 409 AA.  
XX AC ABU86259;  
XX DT 01-JUL-2003 (first entry)  
XX DE Human secreted/transmembrane protein (PRO) #67.  
XX KW Human; immunogen; secreted protein; transmembrane protein; PRO; tumour;  
XX KW proliferation; differentiation; chondrocyte cells;  
XX KW tumour necrosis factor-alpha; TNF-alpha; blood; gene therapy.  
OS Homo sapiens.  
XX PN US2003036146-A1.  
XX PD 20-FEB-2003.  
XX PF 02-JUL-2002; 2002US-00187603.  
XX PR 26-JUN-1998; 98US-00105413.  
PR 16-SEP-1998; 98WO-US019330.  
PR 07-OCT-1998; 98US-00168978.



ABU67472  
 ID ABU67472 standard; protein; 409 AA.  
 XX AC ABU67472;  
 XX DT 29-MAY-2003 (first entry)  
 XX DE Human secreted/transmembrane protein (PRO) #67.  
 XX KW Human; secreted and transmembrane protein; PRO; TNF-alpha;  
 KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;  
 KW tissue typing.  
 XX OS Homo sapiens.  
 XX PN US2003036162-A1.  
 XX PD 20-FEB-2003.  
 XX PF 12-JUL-2002; 2002US-00194423.  
 XX PR 26-JUN-1998; 98US-00105413.  
 PR 16-SEP-1998; 98MO-US019330.  
 PR 07-OCT-1998; 98US-00168978.  
 PR 07-OCT-1998; 98MO-US021141.  
 PR 06-NOV-1998; 98US-00187368.  
 PR 01-DEC-1998; 98MO-US025108.  
 PR 07-DEC-1998; 98US-00202054.  
 PR 03-MAR-1999; 99US-00254311.  
 PR 08-MAR-1999; 99MO-US005028.  
 PR 14-MAY-1999; 99US-00311832.  
 PR 14-MAY-1999; 99MO-US010733.  
 PR 02-JUN-1999; 99MO-US014252.  
 PR 28-AUG-1999; 99US-00380137.  
 PR 25-AUG-1999; 99US-00380138.  
 PR 25-AUG-1999; 99US-00380139.  
 PR 25-AUG-1999; 99US-00380142.  
 PR 01-SEP-1999; 99MO-US020111.  
 PR 15-SEP-1999; 99MO-US021090.  
 PR 18-OCT-1999; 99US-00403297.  
 PR 12-NOV-1999; 99US-00423844.  
 PR 01-DEC-1999; 99MO-US028301.  
 PR 02-DEC-1999; 99MO-US028551.  
 PR 30-DEC-1999; 99MO-US031274.  
 PR 05-JAN-2000; 2000MO-US000219.  
 PR 18-FEB-2000; 2000MO-US004341.  
 PR 18-FEB-2000; 2000MO-US004342.  
 PR 24-FEB-2000; 2000MO-US004414.  
 PR 24-FEB-2000; 2000MO-US005004.  
 PR 01-MAR-2000; 2000MO-US005601.  
 PR 02-MAR-2000; 2000MO-US005841.  
 PR 15-MAR-2000; 2000MO-US006884.  
 PR 30-MAR-2000; 2000MO-US008439.  
 PR 17-MAY-2000; 2000MO-US013705.  
 PR 22-MAY-2000; 2000MO-US014042.  
 PR 30-MAY-2000; 2000MO-US014941.  
 PR 02-JUN-2000; 2000MO-US015264.  
 PR 28-JUL-2000; 2000MO-US020710.  
 PR 22-AUG-2000; 2000US-00644848.  
 PR 24-AUG-2000; 2000MO-US023328.  
 PR 18-SEP-2000; 2000US-00664610.  
 PR 18-SEP-2000; 2000US-00665350.  
 PR 08-NOV-2000; 2000US-00709238.  
 PR 08-NOV-2000; 2000MO-US030952.  
 PR 01-DEC-2000; 2000MO-US032678.  
 PR 20-DEC-2000; 2000US-00747259.  
 PR 20-DEC-2000; 2000MO-US034956.  
 PR 28-FEB-2001; 2001MO-US006520.  
 PR 28-MAR-2001; 2001US-00816744.  
 PR 10-MAY-2001; 2001US-00854208.  
 PR 10-MAY-2001; 2001US-00854280.  
 PR 25-MAY-2001; 2001US-00866028.  
 PR 01-JUN-2001; 2001MO-US017800.

05-JUN-2001; 2001US-00874503.  
 20-JUN-2001; 2001MO-US019692.  
 29-JUN-2001; 2001MO-US021066.  
 09-JUL-2001; 2001MO-US021735.  
 18-JUL-2001; 2001US-00908827.  
 30-JUL-2001; 2001US-00918585.  
 06-AUG-2001; 2001US-00924419.  
 13-AUG-2001; 2001US-00929404.  
 16-AUG-2001; 2001US-00931836.  
 28-AUG-2001; 2001US-00941992.  
 29-AUG-2001; 2001MO-US027099.  
 04-SEP-2001; 2001US-00946374.  
 15-JAN-2002; 2002US-00052586.  
 XX (GETH ) GENENTECH INC.  
 PA Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;  
 PI Fan J, Smith V, Watanabe CK, Wood WI, Zhang Z;  
 XX WPI; 2003-332039/31.  
 DR N-PSDB; ACA05766.  
 DR DR  
 XX New secreted and transmembrane PRO polypeptides and nucleic acids, useful  
 PT in gene therapy, in chromosome and gene mapping, as chromosome markers,  
 PT in tissue typing, and in chromosome identification.  
 XX Claim 11; Fig 134; 706pp; English.  
 PS The invention discloses human nucleic acids encoding secreted and  
 SS transmembrane (PRO) polypeptides. Also disclosed is an antibody that  
 CC specifically binds to the PRO polypeptide, a method for stimulating the  
 CC release of tumour necrosis factor alpha (TNF-alpha) from human blood by  
 CC contacting the blood a PRO polypeptide, a method for stimulating the  
 CC proliferation or differentiation of chondrocyte cells by contacting the  
 CC cells with a PRO polypeptide, a method for detecting the presence of a  
 CC tumour in a mammal and an oligonucleotide probe derived from any of the  
 CC PRO nucleotide sequences. The nucleotide sequences are useful as probes,  
 CC in chromosome and gene mapping, in generating antisense RNA and DNA, in  
 CC preparing PRO polypeptides by recombinant techniques and in gene therapy  
 CC (e.g. for replacement of defective gene). The PRO polypeptides are useful  
 CC as molecular weight markers for protein electrophoresis purposes, for  
 CC chromosome identification, as chromosome markers, as therapeutic agents,  
 CC for stimulating the release of TNF-alpha from human blood, for  
 CC stimulating the proliferation or differentiation of chondrocytes and  
 CC detecting the presence of a tumour. The PRO polypeptides and nucleic  
 CC acids may also be used diagnostically for tissue typing. The sequences  
 CC presented in ABU67406-ABU67710 are the PRO polypeptides of the invention  
 XX Sequence 409 AA;  
 SQ

Query Match 100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTSGFLGKVGKAKNSITDSQMDVVEVVTID 60  
 DB 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTSGFLGKVGKAKNSITDSQMDVVEVVTID 60  
 QY 61 IQKIYPCYQLSFYNSSGEVNEQALKILSNVKNVGVGWYKFRHSDQIMTFRERLLHK 120  
 DB 61 IQKIYPCYQLSFYNSSGEVNEQALKILSNVKNVGVGWYKFRHSDQIMTFRERLLHK 120  
 QY 121 LQEHFSNQDLVFLLLTPSITSCSTHRLSHSLYKPKQGLFHVPLVWNLGMSGELGYK 180  
 DB 121 LQEHFSNQDLVFLLLTPSITSCSTHRLSHSLYKPKQGLFHVPLVWNLGMSGELGYK 180  
 QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEELKSIKCKVEDSEQAV 240  
 DB 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEELKSIKCKVEDSEQAV 240  
 QY 241 DKLVDVNRKRETEKRGAGIQOAREKNTOKPOENIFLCOALRTFFFNSEFLHSCVMS 300  
 DB 241 DKLVDVNRKRETEKRGAGIQOAREKNTOKPOENIFLCOALRTFFFNSEFLHSCVMS 300

QY 301 LKRRVSKSSNNHHLDVNDLTLVVEHTDIDPASPASTPQIIKKKALDLDRLQFKRS 360  
 Db 301 LKRRVSKSSNNHHLDVNDLTLVVEHTDIDPASPASTPQIIKKKALDLDRLQFKRS 360  
 QY 361 RLDTQDKRSKANTSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409  
 Db 361 RLDTQDKRSKANTSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409

RESULT 33  
 ABU80500  
 ID ABU80500 standard; protein; 409 AA.  
 XX  
 AC ABU80500;  
 XX  
 DT 23-JUN-2003 (first entry)  
 XX  
 DE Human PRO protein #67.  
 XX  
 KW Human; tumour; adrenal; lung; colon; breast; prostate; rectal; cervical;  
 KW liver; PRO; gene therapy.  
 XX  
 OS Homo sapiens.  
 XX  
 PN US2003036137-A1.  
 XX  
 PD 20-FEB-2003.  
 XX  
 PF 27-JUN-2002; 2002US-00184640.  
 XX  
 PR 26-JUN-1998; 98US-00105413.  
 PR 16-SEP-1998; 98WO-US019330.  
 PR 07-OCT-1998; 98US-00168978.  
 PR 07-OCT-1998; 98WO-US021141.  
 PR 06-NOV-1998; 98US-00187368.  
 PR 01-DEC-1998; 98WO-US025108.  
 PR 07-DEC-1998; 98US-00202054.  
 PR 03-MAR-1999; 99US-00254311.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 14-MAY-1999; 99US-00311832.  
 PR 02-JUN-1999; 99WO-US010733.  
 PR 25-AUG-1999; 99US-00380137.  
 PR 25-AUG-1999; 99US-00380139.  
 PR 25-AUG-1999; 99US-00380139.  
 PR 01-SEP-1999; 99US-00380142.  
 PR 15-SEP-1999; 99WO-US020111.  
 PR 18-OCT-1999; 99US-00403297.  
 PR 12-NOV-1999; 99US-00423844.  
 PR 01-DEC-1999; 99WO-US028301.  
 PR 02-DEC-1999; 99WO-US028551.  
 PR 30-DEC-1999; 99WO-US031274.  
 PR 05-JAN-2000; 2000WO-US000219.  
 PR 18-FEB-2000; 2000WO-US004341.  
 PR 22-FEB-2000; 2000WO-US004414.  
 PR 24-FEB-2000; 2000WO-US005004.  
 PR 01-MAR-2000; 2000WO-US005860.  
 PR 02-MAR-2000; 2000WO-US005841.  
 PR 15-MAR-2000; 2000WO-US006884.  
 PR 30-MAR-2000; 2000WO-US009439.  
 PR 17-MAY-2000; 2000WO-US013705.  
 PR 22-MAY-2000; 2000WO-US014042.  
 PR 30-MAY-2000; 2000WO-US014941.  
 PR 02-JUN-2000; 2000WO-US015264.  
 PR 28-JUL-2000; 2000WO-US020710.  
 PR 22-AUG-2000; 2000US-00644848.  
 PR 18-SEP-2000; 2000WO-US023328.  
 PR 18-SEP-2000; 2000US-00664610.  
 PR 08-NOV-2000; 2000US-00665350.  
 PR 08-NOV-2000; 2000US-00709238.

PR 08-NOV-2000; 2000WO-US030952.  
 PR 01-DEC-2000; 2000WO-US032678.  
 PR 20-DEC-2000; 2000US-00747259.  
 PR 20-DEC-2000; 2000WO-US034956.  
 PR 28-FEB-2001; 2001WO-US006520.  
 PR 22-MAR-2001; 2001US-00816744.  
 PR 10-MAY-2001; 2001US-00854208.  
 PR 10-MAY-2001; 2001US-00854280.  
 PR 25-MAY-2001; 2001US-00866028.  
 PR 01-JUN-2001; 2001WO-US017800.  
 PR 05-JUN-2001; 2001US-00874503.  
 PR 20-JUN-2001; 2001WO-US015692.  
 PR 29-JUN-2001; 2001WO-US021066.  
 PR 09-JUL-2001; 2001WO-US021735.  
 PR 18-JUL-2001; 2001US-00908827.  
 PR 30-JUL-2001; 2001US-00918585.  
 PR 06-AUG-2001; 2001US-00924419.  
 PR 13-AUG-2001; 2001US-00929404.  
 PR 16-AUG-2001; 2001US-00931836.  
 PR 28-AUG-2001; 2001US-00941992.  
 PR 29-AUG-2001; 2001WO-US027099.  
 PR 04-SEP-2001; 2001US-00946374.  
 PR 15-JAN-2002; 2002US-00052586.  
 XX  
 PA (GETH ) GENENTECH INC.  
 XX  
 XX Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PU, Gurney AL;  
 PI Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;  
 XX  
 XX WPI; 2003-342038/32.  
 DR N-PSDB; ACA66600.  
 XX  
 XX Three hundred and five nucleic acids encoding secreted and transmembrane  
 PT PRO polypeptides, useful for the diagnosis, prevention and/or treatment  
 PT of tumors, such as adrenal, lung, colon, breast, prostate, rectal,  
 XX cervical or liver tumors.  
 XX  
 PS Claim 11; Fig 134; 708pp; English.  
 XX  
 CC The invention relates to three hundred and five nucleic acids encoding  
 CC PRO polypeptides (secreted and transmembrane). Methods and compositions  
 CC of the present invention are useful for the diagnosis, prevention and/or  
 CC treatment of tumors, such as adrenal, lung, colon, breast, prostate,  
 CC rectal, cervical or liver tumors. The PRO polypeptides are also useful  
 CC as molecular weight markers, or for chromosome identification. The PRO  
 CC genes are useful as hybridisation probes, or for screening libraries of  
 CC human cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene  
 CC therapy, particularly for replacing a defective gene. The present  
 CC sequence represents a human PRO polypeptide of the invention  
 XX  
 SQ Sequence 409 AA;  
 Query Match 100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MEGESTSAVLGSGVLGALAFQHLNLTDSPTGFLGKVGKAKNSITDSQDDVWVYTI 60  
 Db 1 MEGESTSAVLGSGVLGALAFQHLNLTDSPTGFLGKVGKAKNSITDSQDDVWVYTI 60  
 QY 61 IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVGVGWYKFRHSDQIMTFRRLHKN 120  
 Db 61 IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVGVGWYKFRHSDQIMTFRRLHKN 120  
 QY 121 LOEHFSNODLVFLTLTPSIITTESCSHLEHSLYKPKQGLFHRVPLVAVNIGKSEQLGYK 180  
 Db 121 LOEHFSNODLVFLTLTPSIITTESCSHLEHSLYKPKQGLFHRVPLVAVNIGKSEQLGYK 180  
 QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOBELKSI CKKVEDSQAV 240  
 Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOBELKSI CKKVEDSQAV 240  
 QY 241 DKLAVKDVNRLKEEIEKRGAGIQAREKNICKDPENIFLQALRTFFPNSFLHSCVMS 300

Db 241 DKLVKDVNRLKREIEKRGAGIQAAEKNIQKDPQENIFLQALRTFFPSEFLHSCVMS 300  
Qy 301 LKNRHVSSSCVYHHLDDVNDLTVYEHDTIPASASTPQIIKHKALDLDROWQPKRS 360  
Db 301 LKNRHVSSSCVYHHLDDVNDLTVYEHDTIPASASTPQIIKHKALDLDROWQPKRS 360  
Qy 361 RLIDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409  
Db 361 RLIDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF 409

RESULT 34  
ABU72480  
ID ABU72480 standard; protein; 409 AA.  
XX  
AC ABU72480;  
XX  
DT 17-JUN-2003 (first entry)  
XX  
DE Novel human secreted and transmembrane protein PRO1013.  
XX  
KW Human; secreted and transmembrane protein; cytostatic; anti-HIV;  
KW virucide; hepatotropic; antiinflammatory; neuroprotective; gene therapy;  
KW PRO; Pharmaceutical; diagnostic; biosensor; bioreactor; malignancy;  
KW Cancer; ovarian cancer; colorectal cancer; Kaposi's sarcoma; leukaemia;  
KW lymphoma; hepatitis B; multiple sclerosis; Crohn's disease;  
KW drug screening.  
XX  
OS Homo sapiens.  
XX  
PN US2003003531-A1.  
XX  
XX 02-JAN-2003.  
PD  
PF 19-NOV-2001; 2001US-00989734.  
PX  
PR 16-JUN-1997; 97US-0049787P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 05-NOV-1997; 97WO-US020069.  
PR 12-NOV-1997; 97US-0065186P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 24-NOV-1997; 97US-0066770P.  
PR 25-FEB-1998; 98US-0075945P.  
PR 20-MAR-1998; 98US-0078910P.  
PR 28-APR-1998; 98US-0083322P.  
PR 07-MAY-1998; 98US-0084600P.  
PR 28-MAY-1998; 98US-0087106P.  
PR 02-JUN-1998; 98US-0087607P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 03-JUN-1998; 98US-0087759P.  
PR 04-JUN-1998; 98US-0088021P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088262P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088030P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088734P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088742P.  
PR 10-JUN-1998; 98US-0088810P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088858P.  
PR 11-JUN-1998; 98US-0088861P.

11-JUN-1998; 98US-0088876P.  
12-JUN-1998; 98US-0089105P.  
16-JUN-1998; 98US-0089440P.  
16-JUN-1998; 98US-0089512P.  
16-JUN-1998; 98US-0089514P.  
17-JUN-1998; 98US-0089532P.  
17-JUN-1998; 98US-0089538P.  
17-JUN-1998; 98US-0089598P.  
17-JUN-1998; 98US-0089599P.  
17-JUN-1998; 98US-0089600P.  
17-JUN-1998; 98US-0089653P.  
18-JUN-1998; 98US-0089801P.  
18-JUN-1998; 98US-0089907P.  
18-JUN-1998; 98US-0089908P.  
16-SEP-1998; 98WO-US019330.  
07-SEP-1998; 98WO-US019437.  
07-OCT-1998; 98WO-US021141.  
01-DEC-1998; 98WO-US025108.  
05-JAN-1999; 99WO-US000106.  
08-MAR-1999; 99WO-US005028.  
02-JUN-1999; 99WO-US012252.  
15-SEP-1999; 99WO-US021090.  
15-SEP-1999; 99WO-US021547.  
30-NOV-1999; 99WO-US028313.  
01-DEC-1999; 99WO-US028301.  
01-DEC-1999; 99WO-US028634.  
16-DEC-1999; 99WO-US030095.  
20-DEC-1999; 99WO-US030911.  
03-JAN-2000; 2000WO-US000213.  
06-JAN-2000; 2000WO-US000376.  
11-FEB-2000; 2000WO-US003565.  
18-FEB-2000; 2000WO-US004341.  
22-FEB-2000; 2000WO-US004414.  
24-FEB-2000; 2000WO-US004914.  
24-FEB-2000; 2000WO-US005004.  
02-MAR-2000; 2000WO-US005841.  
10-MAR-2000; 2000WO-US006319.  
15-MAR-2000; 2000WO-US006884.  
20-MAR-2000; 2000WO-US007377.  
30-MAR-2000; 2000WO-US008439.  
15-MAY-2000; 2000WO-US013358.  
17-MAY-2000; 2000WO-US013705.  
22-MAY-2000; 2000WO-US014042.  
30-MAY-2000; 2000WO-US014941.  
02-JUN-2000; 2000WO-US015264.  
28-JUL-2000; 2000WO-US020710.  
11-AUG-2000; 2000WO-US022031.  
23-AUG-2000; 2000WO-US023522.  
24-AUG-2000; 2000WO-US023328.  
08-NOV-2000; 2000WO-US030952.  
01-DEC-2000; 2000WO-US032678.  
28-FEB-2001; 2001WO-US008520.  
01-JUN-2001; 2001WO-US017800.  
20-JUN-2001; 2001WO-US019692.  
29-JUN-2001; 2001WO-US021066.  
09-JUL-2001; 2001WO-US021735.  
28-AUG-2001; 2001US-00941992.

(GETH ) GENENTECH INC.  
XX Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL,  
XX Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ,  
PI Grimaldi JC, Gurney AL, Kijavini IJ, Napier MA, Pan J, Paoni NF;  
PI Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Wood WI;  
PI Zhang Z;  
XX WPI; 2003-352829/33.  
DR N-PSDB; ACA64272.  
XX  
XX New genes and secreted and transmembrane polypeptides (e.g. PRO183 or  
PT PRO184), useful for treating or diagnosing e.g. ovarian cancer, Kaposi's  
PT sarcoma, leukemia, lymphoma, hepatitis B, multiple sclerosis or Crohn's  
PT disease.



XX PS Claim 12; Fig 95; 663pp; English.

XX CC The invention describes a new isolated nucleic acid molecule comprising the full length coding sequence of the DNA deposited with the American Type Culture Collection (e.g. ATCC Deposit No. 209621, 552-PTA, 819-PTA, 209439, 203135, etc); or a sequence with at least 80% identity to a DNA encoding a PRO polypeptide. The PRO polypeptides or polynucleotides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. These are particularly useful for detecting or treating e.g. malignancies or cancers (e.g. ovarian cancer, colorectal cancer, Kaposi's sarcoma, leukaemia or lymphoma), hepatitis B, multiple sclerosis, or Crohn's disease in mammals. The PRO polypeptides are useful in drug screening, particularly as targets for therapeutic intervention in these diseases, and in the diagnostic determination of the presence of these diseases. The PRO polypeptides are also useful as molecular weight markers, or for chromosome identification. The PRO genes are useful as hybridisation probes, or for screening libraries of human cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene therapy, particularly for replacing a defective gene. This is the amino acid sequence of a novel human secreted and transmembrane PRO polypeptide

XX SQ Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGFGVLCALAFQHLNLTSDTEGFLGVEGKAKNSITDSQMDVVEVYITD 60  
DB 1 MEGESTSAVLGFGVLCALAFQHLNLTSDTEGFLGVEGKAKNSITDSQMDVVEVYITD 60

QY 61 IQKIIPCYQLFSGFYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120  
DB 61 IQKIIPCYQLFSGFYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120

QY 121 LOEHFHNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK 180  
DB 121 LOEHFHNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK 180

QY 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMVYASLOEELKSIKKVEDSEQAV 240  
DB 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMVYASLOEELKSIKKVEDSEQAV 240

QY 241 DKLVKDVNRLKREIEKRGQAQIQAREKNIQKDPQENIFLCOALRFFPNSEFLHSCVMS 300  
DB 241 DKLVKDVNRLKREIEKRGQAQIQAREKNIQKDPQENIFLCOALRFFPNSEFLHSCVMS 300

QY 301 LKRRHVSKESSCNVNHLDVVDNLTLVVEHTDIPEASPASTPQIIKKKALDLDRAWQFKRS 360  
DB 301 LKRRHVSKESSCNVNHLDVVDNLTLVVEHTDIPEASPASTPQIIKKKALDLDRAWQFKRS 360

QY 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGFYSRSPTF 409  
DB 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGFYSRSPTF 409

RESULT 35  
ABU090886 ID ABU090886 standard; protein; 409 AA.  
XX AC ABU090886;  
XX AC ABU090886;  
XX DT 11-JUL-2003 (first entry)  
XX DE Novel human secreted and transmembrane protein PRO1013.  
XX KW Human; secreted and transmembrane protein; PRO; antibody therapy;  
XX XW pharmaceutical; diagnostic; biosensor; bioreactor.  
XX OS Homo sapiens.  
XX XX US2003018173-A1.  
PN

XX PD 23-JAN-2003.

XX PF 01-MAY-2002; 2002US-00063515.

XX PR 06-DEC-2001; 2001US-00006867.

XX PA (GETH ) GENENTECH INC.

XX PI Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;  
PI Grimaldi JC, Gurney AL, Watanabe CK, Wood WI;  
XX WPI; 2003-401702/38.  
XX N-PSDB; ACA91174.

XX PT New antibody useful for identifying PRO polypeptides, for affinity  
XX PT purification of PRO polypeptides, and for preparing a medicament for  
XX PT diagnosing or treating conditions responsive to the antibody or PRO  
XX PT polypeptide.

XX PS Disclosure; Fig 22; 345pp; English.

XX CC The invention describes an antibody that specifically binds to a PRO  
XX CC polypeptide having a fully defined amino acid sequence given in the  
XX CC specification. The antibody is useful in identifying PRO polypeptides  
XX CC useful for various industrial applications, including pharmaceuticals,  
XX CC diagnostics, biosensors and bioreactors. The antibody is also used for  
XX CC affinity purification of PRO polypeptides from recombinant cell culture  
XX CC or natural sources. The antibody, PRO polypeptide, or its agonists or  
XX CC antagonists, may be used for preparing a medicament for diagnosing or  
XX CC treating a condition responsive to the antibody, PRO polypeptide, or its  
XX CC agonists or antagonists. This is the amino acid sequence of a novel human  
XX CC secreted and transmembrane PRO polypeptide

XX SQ Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGFGVLCALAFQHLNLTSDTEGFLGVEGKAKNSITDSQMDVVEVYITD 60  
DB 1 MEGESTSAVLGFGVLCALAFQHLNLTSDTEGFLGVEGKAKNSITDSQMDVVEVYITD 60

QY 61 IQKIIPCYQLFSGFYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120  
DB 61 IQKIIPCYQLFSGFYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120

QY 121 LOEHFHNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK 180  
DB 121 LOEHFHNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK 180

QY 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMVYASLOEELKSIKKVEDSEQAV 240  
DB 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMVYASLOEELKSIKKVEDSEQAV 240

QY 241 DKLVKDVNRLKREIEKRGQAQIQAREKNIQKDPQENIFLCOALRFFPNSEFLHSCVMS 300  
DB 241 DKLVKDVNRLKREIEKRGQAQIQAREKNIQKDPQENIFLCOALRFFPNSEFLHSCVMS 300

QY 301 LKRRHVSKESSCNVNHLDVVDNLTLVVEHTDIPEASPASTPQIIKKKALDLDRAWQFKRS 360  
DB 301 LKRRHVSKESSCNVNHLDVVDNLTLVVEHTDIPEASPASTPQIIKKKALDLDRAWQFKRS 360

QY 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGFYSRSPTF 409  
DB 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGFYSRSPTF 409

RESULT 36  
ABO33945 ID ABO33945 standard; protein; 409 AA.  
XX



AC ABO33945;  
 DT 18-SEP-2003 (first entry)  
 DE Human secreted/transmembrane protein PRO1013.  
 KW Human; secreted/transmembrane protein; PRO; tumour; cancer; cytostatic.  
 OS Homo sapiens.  
 XX US2003009013-A1.  
 PD 09-JAN-2003.  
 XX 01-MAY-2002; 2002US-00063519.  
 PR 30-DEC-1998; 98KR-000562142.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 14-MAY-1999; 99US-00311832.  
 PR 14-MAY-1999; 99WO-US010733.  
 PR 25-AUG-1999; 99US-00380137.  
 PR 25-AUG-1999; 99US-00380138.  
 PR 25-AUG-1999; 99US-00380139.  
 PR 25-AUG-1999; 99US-00380142.  
 PR 15-SEP-1999; 99US-00397342.  
 PR 18-OCT-1999; 99US-00403297.  
 PR 12-NOV-1999; 99US-00423844.  
 PR 30-DEC-1999; 99WO-US031274.  
 PR 18-FEB-2000; 2000WO-US004341.  
 PR 01-MAR-2000; 2000WO-US005601.  
 PR 02-MAR-2000; 2000WO-US005841.  
 PR 21-MAR-2000; 2000WO-US007532.  
 PR 22-MAY-2000; 2000WO-US014042.  
 PR 02-JUN-2000; 2000WO-US015264.  
 PR 22-AUG-2000; 2000US-00644848.  
 PR 24-AUG-2000; 2000WO-US023328.  
 PR 18-SEP-2000; 2000US-00664610.  
 PR 18-SEP-2000; 2000US-00665350.  
 PR 08-NOV-2000; 2000US-00709238.  
 PR 10-NOV-2000; 2000WO-US030873.  
 PR 01-DEC-2000; 2000WO-US032678.  
 PR 20-DEC-2000; 2000US-00747259.  
 PR 20-DEC-2000; 2000WO-US034356.  
 PR 28-FEB-2001; 2001WO-US006520.  
 PR 22-MAR-2001; 2001US-00816744.  
 PR 10-MAY-2001; 2001US-00854208.  
 PR 10-MAY-2001; 2001US-00854280.  
 PR 30-MAY-2001; 2001US-00870574.  
 PR 01-JUN-2001; 2001WO-US017800.  
 PR 05-JUN-2001; 2001US-00874503.  
 PR 29-JUN-2001; 2001US-00869599.  
 PR 18-JUL-2001; 2001US-00908827.  
 PR 06-DEC-2001; 2001US-00006867.  
 XX (GETH) GENENTECH INC.  
 XX Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;  
 PI Grimaldi JC, Gurney AL, Watanabe CK, Wood WI;  
 XX WPI: 2003-447384/42.  
 DR N-PSDB; ACDB1551.  
 XX New isolated antibody specifically binding a PRO polypeptide, useful for  
 PT the preparation of a medicament for treating disorders with the aberrant  
 PT expression or activity of the PRO polypeptide, such as tumor conditions  
 PT and cancer.  
 XX Disclosure; Fig 22; 223pp; English.  
 XX The invention relates to an antibody that binds to a secreted or  
 CC transmembrane protein designated PRO1446 appearing as ABO33941. The  
 CC protein is one of 84 PRO polypeptides which (along with their encoding  
 CC nucleic acids) are disclosed in the specification. The methods and

CC compositions of the present invention are useful for the preparation of a  
 CC medicament for the treatment of disorders associated with the aberrant  
 CC expression or activity of the PRO polypeptide, such as tumour conditions  
 CC and cancer. They can also be used to generate transgenic or knockout  
 CC animals useful in the development and screening of therapeutically useful  
 CC reagents. The PRO polypeptides and encoding nucleic acids can be used as  
 CC molecular weight markers for protein electrophoresis, chromosome  
 CC identification and tissue typing. The antibodies may be used in various  
 CC diagnostic, competitive binding and/or immunoprecipitation assays. The  
 CC present sequence represents a PRO polypeptide  
 XX  
 XX Sequence 409 AA;  
 SQ  
 Query Match 100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGELLGVKGEAKNSITDSQMDDEVVYITD 60  
 DB 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGELLGVKGEAKNSITDSQMDDEVVYITD 60  
 QY 61 IQYIICYQLFPGFYNSSGGEVNEQALKKILSNVKNVGVGKFRHSDQIMTFRELLHKN 120  
 DB 61 IQYIICYQLFPGFYNSSGGEVNEQALKKILSNVKNVGVGKFRHSDQIMTFRELLHKN 120  
 QY 121 LQEHFNSQDLVLLLTPTSIITSCSTHRLHSLYKPKGLFHRVPLVNVANLGMSEQLGYK 180  
 DB 121 LQEHFNSQDLVLLLTPTSIITSCSTHRLHSLYKPKGLFHRVPLVNVANLGMSEQLGYK 180  
 QY 181 TVSGSCMSTGFSRAVTHSSKTFEEDGSLKEVHKINEMYASIQEELKSIKCKVEDEQAV 240  
 DB 181 TVSGSCMSTGFSRAVTHSSKTFEEDGSLKEVHKINEMYASIQEELKSIKCKVEDEQAV 240  
 QY 241 DKLVDVNRLEKREIKRGAQIQARAKNIQDPENIFLQALRTFFPNSEFLHSCVMS 300  
 DB 241 DKLVDVNRLEKREIKRGAQIQARAKNIQDPENIFLQALRTFFPNSEFLHSCVMS 300  
 QY 301 LKNRHVSKSSCNYNHLLDVVDNLTLVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360  
 DB 301 LKNRHVSKSSCNYNHLLDVVDNLTLVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360  
 QY 361 RLDDTDKSKSKANTGSSNODKASKMSSPETDEIEKMGFGFGEYSRSPTF 409  
 DB 361 RLDDTDKSKSKANTGSSNODKASKMSSPETDEIEKMGFGFGEYSRSPTF 409  
 RESULT 37  
 ABR99418  
 ID ABR99418 standard; protein; 409 AA.  
 XX  
 AC ABR99418;  
 XX 18-SEP-2003 (first entry)  
 XX Human secreted polypeptide PRO1013, SEQ ID NO:134.  
 XX KW Human; PRO; secreted protein; transmembrane protein;  
 KW extracellular domain; tumour necrosis factor-alpha; TNF-alpha;  
 KW chondrocyte; proliferation; differentiation; cartilage disorder;  
 KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;  
 KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;  
 KW liver; drug screening; transgenic animal; genetic analysis;  
 KW antiarthritic; vulnary; gene therapy.  
 XX Homo sapiens.  
 OS  
 XX US2003040063-A1.  
 XX 27-FEB-2003.  
 PD 26-JUN-2002; 2002US-00181006.  
 XX 18-SEP-1997; 97US-0059263P.  
 PR

PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081193P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088961P.  
PR 11-JUN-1998; 98US-0088963P.  
PR 11-JUN-1998; 98US-0088976P.  
PR 11-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 12-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 22-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090890P.  
PR 25-JUN-1998; 98US-0090894P.  
PR 25-JUN-1998; 98US-0090959P.  
PR 26-JUN-1998; 98US-0090966P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-00911359P.  
PR 01-JUL-1998; 98US-00911544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 24-JUL-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.

```
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98MO-US019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 17-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101932P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSFVLGALAFOLHNTDSTEGFLGKVGKAKNITSQMDDEVVYIID 60
DB 1 MEGESTSAVLGSFVLGALAFOLHNTDSTEGFLGKVGKAKNITSQMDDEVVYIID 60

QY 61 IQKYPICYQLFSFYNSGSEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRERLLHN 120
DB 61 IQKYPICYQLFSFYNSGSEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRERLLHN 120

QY 121 LOEHNSNODLVLLITPISITESTCSHLESLYKPKGLPHRVPLVNLGNSEQLGYK 180
DB 121 LOEHNSNODLVLLITPISITESTCSHLESLYKPKGLPHRVPLVNLGNSEQLGYK 180

QY 181 TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIQBELKSICKKVEDSQAV 240
DB 181 TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIQBELKSICKKVEDSQAV 240

QY 241 DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPQENIFLQALRTFPFNSFLHSCVMS 300
DB 241 DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPQENIFLQALRTFPFNSFLHSCVMS 300

QY 301 LKNRVKSSCNYNHLDVDNLTLMVHTDIPASPASTPQIIKHKALDLDLDRWQFKRS 360
DB 301 LKNRVKSSCNYNHLDVDNLTLMVHTDIPASPASTPQIIKHKALDLDLDRWQFKRS 360

QY 361 RLDDTQDKRSKANTGSSNQDKASKMSPETDEEIEKMGFGYGRSPTTF 409
DB 361 RLDDTQDKRSKANTGSSNQDKASKMSPETDEEIEKMGFGYGRSPTTF 409

RESULT 38
ABR98808
ID ABR98808 standard; protein; 409 AA.
XX
AC ABR98808;
XX
DT 17-SEP-2003 (first entry)
XX
DE Human secreted polypeptide PRO1013, SEQ ID NO:134.
XX
```

```
KW Human; PRO; secreted protein; transmembrane protein; TNF-alpha;
KW extracellular domain; tumour necrosis factor-alpha; cartilage disorder;
KW chondrocyte; proliferation; differentiation; cancer; tumour; diagnosis;
KW bone disorder; arthritis; sports injury; cancer; kidney; rectum; cervix;
KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;
KW liver; drug screening; transgenic animal; genetic analysis;
KW antiarthritic; vulnery; gene therapy.
XX
OS Homo sapiens.
XX
PN US2003040064-A1.
XX
PD 27-FEB-2003.
XX
PF 26-JUN-2002; 2002US-00183008.
XX
PR 18-SEP-1997; 97US-0059263P.
PR 18-SEP-1997; 97US-0059266P.
PR 17-OCT-1997; 97US-0062250P.
PR 21-OCT-1997; 97US-0063486P.
PR 24-OCT-1997; 97US-0063120P.
PR 24-OCT-1997; 97US-0063121P.
PR 28-OCT-1997; 97US-0063540P.
PR 28-OCT-1997; 97US-0063541P.
PR 28-OCT-1997; 97US-0063544P.
PR 28-OCT-1997; 97US-0063564P.
PR 29-OCT-1997; 97US-0063734P.
PR 31-OCT-1997; 97US-0063870P.
PR 31-OCT-1997; 97US-0064103P.
PR 13-NOV-1997; 97US-0065311P.
PR 21-NOV-1997; 97US-0066120P.
PR 24-NOV-1997; 97US-0066466P.
PR 24-NOV-1997; 97US-0066772P.
PR 11-DEC-1997; 97US-0069335P.
PR 12-DEC-1997; 97US-0069425P.
PR 17-DEC-1997; 97US-0069870P.
PR 18-DEC-1997; 97US-0068017P.
PR 10-MAR-1998; 98US-0077450P.
PR 11-MAR-1998; 98US-0077632P.
PR 11-MAR-1998; 98US-0077649P.
PR 20-MAR-1998; 98US-0078886P.
PR 20-MAR-1998; 98US-0078939P.
PR 27-MAR-1998; 98US-0079664P.
PR 27-MAR-1998; 98US-0079786P.
PR 31-MAR-1998; 98US-0080107P.
PR 31-MAR-1998; 98US-0080194P.
PR 01-APR-1998; 98US-0080327P.
PR 01-APR-1998; 98US-0080333P.
PR 08-APR-1998; 98US-0081049P.
PR 08-APR-1998; 98US-0081070P.
PR 08-APR-1998; 98US-0081195P.
PR 13-APR-1998; 98US-0081838P.
PR 21-APR-1998; 98US-0082569P.
PR 22-APR-1998; 98US-0082704P.
PR 22-APR-1998; 98US-0082797P.
PR 28-APR-1998; 98US-0083322P.
PR 28-APR-1998; 98US-0083495P.
PR 28-APR-1998; 98US-0083496P.
PR 29-APR-1998; 98US-0083499P.
PR 29-APR-1998; 98US-0083559P.
PR 05-MAY-1998; 98US-0084366P.
PR 06-MAY-1998; 98US-0084414P.
PR 07-MAY-1998; 98US-0084639P.
PR 07-MAY-1998; 98US-0084640P.
PR 07-MAY-1998; 98US-0084643P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085580P.
PR 15-MAY-1998; 98US-0085582P.
PR 15-MAY-1998; 98US-0085700P.
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
```

```
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087759P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 05-JUN-1998; 98US-0088555P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-00908662P.
PR 26-JUN-1998; 98US-00908663P.
PR 01-JUL-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096765P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 15-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGFLIGEVKGEAKNSITDSQMDDEVVYTTID 60
DB 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGFLIGEVKGEAKNSITDSQMDDEVVYTTID 60
QY 61 IQKYPICYOLFSEFYNSSGEVNEQALKILSNVKNVGVGWYKPRRHSDOIMTFRERLLHKN 120
DB 61 IQKYPICYOLFSEFYNSSGEVNEQALKILSNVKNVGVGWYKPRRHSDOIMTFRERLLHKN 120
QY 121 LOEHFNSQDLVFLLLTPTSIITESCSTRLEHSLYKPKQGLFHRVPLVWNLGMSQGLGYK 180
DB 121 LOEHFNSQDLVFLLLTPTSIITESCSTRLEHSLYKPKQGLFHRVPLVWNLGMSQGLGYK 180
QY 181 TVSGSCMSTGFSRAVQTHSSKFFEEGSLKEVHKINEMVASLOEBLKSICKKVEDSEQAV 240
DB 181 TVSGSCMSTGFSRAVQTHSSKFFEEGSLKEVHKINEMVASLOEBLKSICKKVEDSEQAV 240
QY 241 DKLKVDNRLKREIEKRGAGIQAREKNTOKDPOENIFLCOALRTFFPNSEPLHSCVMS 300
DB 241 DKLKVDNRLKREIEKRGAGIQAREKNTOKDPOENIFLCOALRTFFPNSEPLHSCVMS 300
QY 301 LKNERHVSCKSCNHNHLDVVDNLTMLVHTDIDPEASPASTPQIIKHKALDLDPRWQFKRS 360
```

[illegible]

```

PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 09-SEP-1998; 98US-0098843P.
PR 10-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 15-SEP-1998; 98US-0099812P.
PR 16-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-01019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 18-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 23-SEP-1998; 98US-0101058P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 24-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 30-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.

Query Match          100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGFVLGALAFQHLNNTSDTGEFLLGVEYGEAKNSITDSQMDVVEVYITD 60
DB 1 MEGESTSAVLGSGFVLGALAFQHLNNTSDTGEFLLGVEYGEAKNSITDSQMDVVEVYITD 60
QY 61 IQKIPICYQLFSFYNSGSEVNEQALKKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120

```

```

Db 61 IQKIPICYQLFSFYNSGSEVNEQALKKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120
QY 121 LQEHFSNQDLVFLLLTPSIITESCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEOLGYK 180
Db 121 LQEHFSNQDLVFLLLTPSIITESCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEOLGYK 180
QY 181 TVSGSCMSTGFSRAVQTHSKKFFEDGSLKEVHKINEMTYASLQEBELKSLCKKVEDSEQAV 240
Db 181 TVSGSCMSTGFSRAVQTHSKKFFEDGSLKEVHKINEMTYASLQEBELKSLCKKVEDSEQAV 240
QY 241 DKLVKDVNRLKREIEKRGAQIOAREKNIQKDPQENIFLCOALRTFFPNSFLHSCVMS 300
Db 241 DKLVKDVNRLKREIEKRGAQIOAREKNIQKDPQENIFLCOALRTFFPNSFLHSCVMS 300
QY 301 LKXRVHVKSSCNVNHLDVVDNLTLMVHTDIPASASTPOI IKHKALDLDNRQFKRS 360
Db 301 LKXRVHVKSSCNVNHLDVVDNLTLMVHTDIPASASTPOI IKHKALDLDNRQFKRS 360
QY 361 RLILDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSPTF 409
Db 361 RLILDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSPTF 409

RESULT 40
ABR92231
ID ABR92231 standard; protein; 409 AA.
XX AC ABR92231;
XX DT 13-SEP-2003 (first entry)
XX DE Human secreted polypeptide PRO1013, SEQ ID NO:134.
XX KW Human; PRO; secreted protein; transmembrane protein; TNF-alpha;
XX KW extracellular domain; tumour necrosis factor-alpha; TNF-alpha;
XX KW chondrocyte; proliferation; differentiation; cartilage disorder;
XX KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;
XX KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;
XX KW liver; drug screening; transgenic animal; genetic analysis;
XX KW antiarthritic; vulnery; gene therapy.
XX OS Homo sapiens.
XX PN US2003036160-A1.
XX PD 20-FEB-2003.
XX PF 02-JUL-2002; 2002US-00188781.
XX PR 18-SEP-1997; 97US-0059263P.
XX PR 18-SEP-1997; 97US-0059266P.
XX PR 17-OCT-1997; 97US-0062250P.
XX PR 21-OCT-1997; 97US-0063486P.
XX PR 24-OCT-1997; 97US-0063120P.
XX PR 24-OCT-1997; 97US-0063121P.
XX PR 28-OCT-1997; 97US-0063540P.
XX PR 28-OCT-1997; 97US-0063541P.
XX PR 28-OCT-1997; 97US-0063544P.
XX PR 28-OCT-1997; 97US-0063564P.
XX PR 29-OCT-1997; 97US-0063734P.
XX PR 31-OCT-1997; 97US-0063870P.
XX PR 31-OCT-1997; 97US-0064103P.
XX PR 13-NOV-1997; 97US-0065311P.
XX PR 21-NOV-1997; 97US-0066120P.
XX PR 24-NOV-1997; 97US-0066466P.
XX PR 24-NOV-1997; 97US-0066772P.
XX PR 11-DEC-1997; 97US-0069335P.
XX PR 12-DEC-1997; 97US-0069425P.
XX PR 17-DEC-1997; 97US-0069870P.
XX PR 18-DEC-1997; 97US-0068017P.
XX PR 10-MAR-1998; 98US-0077450P.
XX PR 11-MAR-1998; 98US-0077632P.

```

PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088976P.  
PR 12-JUN-1998; 98US-0089109P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 24-JUL-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095398P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 02-SEP-1998; 98US-0098960P.  
PR 09-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 29-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.





PR	12-JUN-1998;	98US-0089090P.	PR	18-SEP-1998;	98US-0100849P.
PR	12-JUN-1998;	98US-0089105P.	PR	18-SEP-1998;	98US-0101014P.
PR	16-JUN-1998;	98US-0089511P.	PR	18-SEP-1998;	98US-0101068P.
PR	16-JUN-1998;	98US-0089514P.	PR	23-SEP-1998;	98US-0101471P.
PR	17-JUN-1998;	98US-0089538P.	PR	23-SEP-1998;	98US-0101472P.
PR	17-JUN-1998;	98US-0089598P.	PR	23-SEP-1998;	98US-0101475P.
PR	17-JUN-1998;	98US-0089653P.	PR	23-SEP-1998;	98US-0101477P.
PR	18-JUN-1998;	98US-0089908P.	PR	24-SEP-1998;	98US-0101738P.
PR	19-JUN-1998;	98US-0089952P.	PR	24-SEP-1998;	98US-0101739P.
PR	22-JUN-1998;	98US-0090246P.	PR	24-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090252P.	PR	24-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090254P.	PR	25-SEP-1998;	98US-0101786P.
PR	24-JUN-1998;	98US-0090423P.	PR	25-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090433P.	PR	25-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090444P.	PR	25-SEP-1998;	98US-0102330P.
PR	24-JUN-1998;	98US-0090461P.	PR	25-SEP-1998;	98US-0102331P.
PR	24-JUN-1998;	98US-0090535P.	PR	30-SEP-1998;	98US-0102487P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102570P.
PR	25-JUN-1998;	98US-0090678P.	PR	30-SEP-1998;	98US-0102571P.
PR	25-JUN-1998;	98US-0090678P.	PR	01-OCT-1998;	98US-0102684P.
PR	25-JUN-1998;	98US-0090688P.	PR	01-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090690P.	PR	02-OCT-1998;	98US-0102965P.
PR	25-JUN-1998;	98US-0090694P.	PR	06-OCT-1998;	98US-0103258P.
PR	25-JUN-1998;	98US-0090695P.	PR	06-OCT-1998;	98US-0103449P.
PR	25-JUN-1998;	98US-0090696P.			
PR	26-JUN-1998;	98US-00105413.			
PR	26-JUN-1998;	98US-0090662P.			
PR	26-JUN-1998;	98US-0090863P.			
PR	26-JUN-1998;	98US-0091010P.			
PR	01-JUL-1998;	98US-0091359P.			
PR	01-JUL-1998;	98US-0091544P.			
PR	02-JUL-1998;	98US-0091478P.			
PR	02-JUL-1998;	98US-0091486P.			
PR	02-JUL-1998;	98US-0091628P.			
PR	02-JUL-1998;	98US-0091629P.			
PR	02-JUL-1998;	98US-0091632P.			
PR	24-JUL-1998;	98US-0094006P.			
PR	04-AUG-1998;	98US-0095282P.			
PR	10-AUG-1998;	98US-0095998P.			
PR	10-AUG-1998;	98US-0096012P.			
PR	17-AUG-1998;	98US-0096757P.			
PR	17-AUG-1998;	98US-0096766P.			
PR	17-AUG-1998;	98US-0096867P.			
PR	17-AUG-1998;	98US-0096891P.			
PR	17-AUG-1998;	98US-0096897P.			
PR	18-AUG-1998;	98US-0096949P.			
PR	18-AUG-1998;	98US-0096959P.			
PR	26-AUG-1998;	98US-0097022P.			
PR	26-AUG-1998;	98US-0097952P.			
PR	26-AUG-1998;	98US-0097954P.			
PR	26-AUG-1998;	98US-0097955P.			
PR	26-AUG-1998;	98US-0097971P.			
PR	26-AUG-1998;	98US-0097974P.			
PR	26-AUG-1998;	98US-0098014P.			
PR	01-SEP-1998;	98US-0098716P.			
PR	02-SEP-1998;	98US-0098803P.			
PR	02-SEP-1998;	98US-0098821P.			
PR	02-SEP-1998;	98US-0098843P.			
PR	09-SEP-1998;	98US-0099602P.			
PR	10-SEP-1998;	98US-0099741P.			
PR	10-SEP-1998;	98US-0099754P.			
PR	10-SEP-1998;	98US-0099763P.			
PR	10-SEP-1998;	98US-0099812P.			
PR	15-SEP-1998;	98US-0100388P.			
PR	16-SEP-1998;	98US-0100662P.			
PR	16-SEP-1998;	98US-0100664P.			
PR	16-SEP-1998;	98US-0101751P.			
PR	16-SEP-1998;	98NO-05019330.			
PR	17-SEP-1998;	98US-0100683P.			
PR	17-SEP-1998;	98US-0100684P.			
PR	17-SEP-1998;	98US-0100919P.			
PR	17-SEP-1998;	98US-0100930P.			

Query Match: 100.0%; Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred No. 0;

Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTGEFLGVEKGNKSIITDSQMDVVEVYITD 60

Db 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTGEFLGVEKGNKSIITDSQMDVVEVYITD 60

Qy 61 IQKIYPCYQYLFSPYSSGVEQALKKILSNVKNVVGWYKFRHSDQIMTFRERLLHKN 120

Db 61 IQKIYPCYQYLFSPYSSGVEQALKKILSNVKNVVGWYKFRHSDQIMTFRERLLHKN 120

Qy 121 LQEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGNSEOLGYK 180

Db 121 LQEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGNSEOLGYK 180

Qy 181 TVSGSCMSTGFSRAVQTHSKFEEBGSUKVHKINEMTASIQEELKSIKKVEDSEQAV 240

Db 181 TVSGSCMSTGFSRAVQTHSKFEEBGSUKVHKINEMTASIQEELKSIKKVEDSEQAV 240

Qy 241 DKLVKDVNRLKREIKRGAQIQAAEKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300

Db 241 DKLVKDVNRLKREIKRGAQIQAAEKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300

Qy 301 LKNRHYKSCSCNHNHLDVVDNLITMVEHTDPEASPASTPQIIKHKALDLDQWQFKES 360

Db 301 LKNRHYKSCSCNHNHLDVVDNLITMVEHTDPEASPASTPQIIKHKALDLDQWQFKES 360

Qy 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF 409

Db 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF 409

RESULT 42

ABR78293

ID ABR78293 standard; protein; 409 AA.

XX ABR78293;

AC ABR78293;

XX 19-SEP-2003 (first entry)

DT Human secreted polypeptide PRO1013, SEQ ID NO:134.

DE Human; PRO; secreted protein; transmembrane protein;

XX extracellular domain; tumour necrosis factor-alpha;

KW chondrocyte; proliferation; differentiation; cartilage disorder;

KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;

KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;

KW liver; drug screening; transgenic animal; genetic analysis;  
KW antiarthritic; vulnerary; gene therapy.

OS Homo sapiens.

PN US2003054474-A1.

PN 20-MAR-2003.

XX 22-JUL-2002; 2002US-00201530.

XX 22-JUN-1998; 98US-0090254P.

PR 02-JUN-1998; 98WO-US012252.

PR 25-AUG-1999; 99US-00380137.

PR 28-FEB-2001; 2001WO-US006520.

PR 15-JAN-2002; 2002US-00052586.

XX (GETH ) GENENTECH INC.

XX Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;

PI Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;

XX WPI; 2003-503631/47.

XX N-PSDB; ACP00166.

XX Claim 11; Fig 134; 700pp; English.

The invention relates to human PRO secreted/transmembrane polypeptides (ABR78227-ABR78531) and nucleic acids encoding them (ACP00100-00404). The invention also relates to sequences at least 80% identical to the PRO nucleic acid and polypeptide sequences of the invention, recombinant vectors and host cells comprising a PRO nucleic acid, a method for the recombinant production of a PRO polypeptide, antibodies against a PRO polypeptide, and fusion proteins comprising a PRO polypeptide. Nucleic acids encoding PRO polypeptides of the invention were initially identified via homology screening using consensus sequences based on the extracellular domain sequences from known secreted proteins. Human cDNA libraries containing sequences of interest were identified using oligonucleotides based on the consensus sequences, and cDNA clones were isolated and characterized. The PRO polypeptides are useful for stimulating release of tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) from human blood and may thus be used in the treatment of conditions in which enhanced TNF- $\alpha$  release would be beneficial. They are also useful for stimulating the proliferation or differentiation of chondrocytes and as such may be used in the treatment of various bone and/or cartilage disorders such as arthritis and sports injuries. The PRO polypeptides may be used in a method for detecting the presence of a tumour (e.g., an adrenal tumour, lung tumour, colon tumour, breast tumour, prostate tumour, rectal tumour, cervical tumour or liver tumour) in a mammal. This method involves comparing the level of expression of the PRO polypeptide in test and control samples, where a higher level of expression of PRO polypeptide in the test sample as compared to the control sample is indicative of the presence of a tumour. The PRO polypeptides are additionally useful for in drug screening to identify agonists and antagonists of PRO polypeptides. PRO nucleic acids are useful as hybridisation probes (for isolation of cDNA molecules), in chromosome and gene mapping, in the generation of antisense RNA and DNA and in gene therapy. The nucleic acids can also be used for mapping genes encoding PRO polypeptides, for genetic analysis of individuals with genetic disorders, and for generating either transgenic animals or knock-out animals which are useful in the development and screening of therapeutically useful compounds. Sequences ABR78227-ABR78531 represent the human PRO secreted/transmembrane polypeptides of the invention. Note: The sequence data for this patent is also available in electronic format from USPTO at [seqdata.uspto.gov/sequence.html](http://seqdata.uspto.gov/sequence.html)

XX Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGFLGALAFQHLNTDSDTEGFLLGVEKGAKNISITDSQMDVVEVYITD 60  
|||  
DB 1 MEGESTSAVLGFLGALAFQHLNTDSDTEGFLLGVEKGAKNISITDSQMDVVEVYITD 60  
|||

QY 61 IQYIFCYQLFSFYNSGVEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRILLHKN 120  
|||  
DB 61 IQYIFCYQLFSFYNSGVEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRILLHKN 120  
|||

QY 121 LQHFNSQDLVFLLLTPSIITSCSTRLEHSLYKPKGLFHRVPLVLANLGMSEOLGYK 180  
|||  
DB 121 LQHFNSQDLVFLLLTPSIITSCSTRLEHSLYKPKGLFHRVPLVLANLGMSEOLGYK 180  
|||

QY 181 TVSGCMSTGFSRAVQTHSSKPFEDGSLKEVHKINEMVASIQERLKSICKKVEDSEQAV 240  
|||  
DB 181 TVSGCMSTGFSRAVQTHSSKPFEDGSLKEVHKINEMVASIQERLKSICKKVEDSEQAV 240  
|||

QY 241 DKLKVDNRLKREIEKRGAGIQAAAEKNIQKDPQENIFLCOALRTFFPNSFLHSCVMS 300  
|||  
DB 241 DKLKVDNRLKREIEKRRRGAQIQAAAEKNIQKDPQENIFLCOALRTFFPNSFLHSCVMS 300  
|||

QY 301 LKNRHVS KSSCNYNHLDVVVDNLTLAVERTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360  
|||  
DB 301 LKNRHVS KSSCNYNHLDVVVDNLTLAVERTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360  
|||

QY 361 RLDDTQDKSKANTGSSNQDKASKMSSPETDEIEKMGEGEYSRSPTF 409  
|||  
DB 361 RLDDTQDKSKANTGSSNQDKASKMSSPETDEIEKMGEGEYSRSPTF 409  
|||

RESULT 43

ABU71962

ID ABU71962 standard; protein; 409 AA.

XX AC ABU71962;

XX DT 11-JUN-2003 (first entry)

XX DE Novel human secreted and transmembrane protein PRO1013.

XX KW Human; secreted and transmembrane polypeptide; chromosome mapping;

XX KW gene mapping; transgenic animal; knockout animal;

XX KW therapeutic agent screening; chromosome identification; tissue typing;

XX KW gene therapy.

XX OS Homo sapiens.

XX PN US2003018183-A1.

XX PD 23-JAN-2003.

XX PF 01-MAY-2002; 2002US-00063512.

XX PR 06-DEC-2001; 2001US-00006867.

XX XX (GETH ) GENENTECH INC.

XX PI Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;

XX PI Grimaldi JC, Gurney AL, Watanabe CK, Wood WI;

XX XX WPI; 2003-330984/31.

XX XX N-PSDB; ACA60373.

XX PT New secreted and transmembrane PRO polypeptides and nucleic acid  
XX PT molecules encoding the polypeptides, useful in gene therapy or preparing  
XX PT a medicament for treating a condition that is responsive to the PRO  
XX PT polypeptide or antibody.

XX PS Disclosure; Fig 22; 409pp; English.

XX CC The invention describes novel isolated PRO polypeptides. The PRO

CC polypeptides or anti-PRO antibodies are useful in preparing a medicament  
 CC for treating a condition that is responsive to the PRO polypeptide or  
 CC antibody. The PRO nucleotide sequences may be used as hybridisation  
 CC probes in chromosome and gene mapping, or in generating antisense RNA and  
 CC DNA. PRO nucleic acids are also useful in preparing PRO polypeptides, in  
 CC assays to identify other proteins or molecules involved in binding  
 CC reaction, to generate transgenic animals or knockout animals, which in  
 CC turn are useful in the development and screening of therapeutically  
 CC useful reagents, for chromosome identification, and tissue typing. The  
 CC PRO polypeptides and nucleic acid molecules are also useful in gene  
 CC therapy, and as molecular weight markers for protein electrophoresis  
 CC purposes. The anti-PRO antibodies may be used in diagnostic assays for  
 CC PRO, or for the affinity purification of PRO from recombinant cell  
 CC culture or natural sources. This is the amino acid sequence of a novel  
 CC human secreted and transmembrane PRO polypeptide  
 XX  
 SQ Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGFLGALAFQHLNLTDSDEGLLGEVKGAKNITDSQMDDEVVYITD 60  
 Db 1 MEGESTSAVLGFLGALAFQHLNLTDSDEGLLGEVKGAKNITDSQMDDEVVYITD 60

QY 61 IQKIYPCYQLFSFYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120  
 Db 61 IQKIYPCYQLFSFYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHN 120

QY 121 LQEHFSNQLVPLLTPTSIITSCSTHRLSHLYKPQGLFHRVPLVNVANLGMSEQLGYK 180  
 Db 121 LQEHFSNQLVPLLTPTSIITSCSTHRLSHLYKPQGLFHRVPLVNVANLGMSEQLGYK 180

QY 181 TVSGSCMTGFGRAVQTHSSKFFEDGSLKEVHKINEMVYASLOBELKICKKVEDSEQAV 240  
 Db 181 TVSGSCMTGFGRAVQTHSSKFFEDGSLKEVHKINEMVYASLOBELKICKKVEDSEQAV 240

QY 241 DKLVKDVNLRKREIEKRGQAQIQAAREKNIQKDPQENIFLQALTFPPNFEFLHSCVMS 300  
 Db 241 DKLVKDVNLRKREIEKRGQAQIQAAREKNIQKDPQENIFLQALTFPPNFEFLHSCVMS 300

QY 301 LKNRHVSKSSCNVNHLDVVDNLTLVHTDIPEASPTQIIKKKALDLDLRWQFKRS 360  
 Db 301 LKNRHVSKSSCNVNHLDVVDNLTLVHTDIPEASPTQIIKKKALDLDLRWQFKRS 360

QY 361 RLDDTDKRSKANTGSSNQDKASKMSPTDEIEKMKGFGYSRSPTE 409  
 Db 361 RLDDTDKRSKANTGSSNQDKASKMSPTDEIEKMKGFGYSRSPTE 409

RESULT 44  
 ABU85029  
 ID ABU85029 standard; protein; 409 AA.  
 XX  
 AC ABU85029;  
 XX  
 DT 30-JUN-2003 (first entry)  
 XX  
 DE Novel human secreted and transmembrane protein PRO1013.  
 XX  
 KW Human; secreted and transmembrane protein; PRO; cytostatic; gene therapy;  
 KW chondrocyte stimulator; chromosome mapping; gene mapping;  
 KW transgenic animal; knockout animal; tumour.  
 XX  
 OS Homo sapiens.  
 XX  
 FN US2003032114-A1.  
 XX  
 PD 13-FEB-2003.  
 XX  
 PF 20-JUN-2002; 2002US-00176919.  
 XX

PR 18-SEP-1997; 97US-0052633P.  
 PR 18-SEP-1997; 97US-0052666P.  
 PR 17-OCT-1997; 97US-0062250P.  
 PR 21-OCT-1997; 97US-0063486P.  
 PR 24-OCT-1997; 97US-0063120P.  
 PR 24-OCT-1997; 97US-0063122P.  
 PR 28-OCT-1997; 97US-0063540P.  
 PR 28-OCT-1997; 97US-0063541P.  
 PR 28-OCT-1997; 97US-0063544P.  
 PR 28-OCT-1997; 97US-0063564P.  
 PR 29-OCT-1997; 97US-0063734P.  
 PR 31-OCT-1997; 97US-0063870P.  
 PR 31-OCT-1997; 97US-0064103P.  
 PR 13-NOV-1997; 97US-0065111P.  
 PR 21-NOV-1997; 97US-0066120P.  
 PR 24-NOV-1997; 97US-0066466P.  
 PR 24-NOV-1997; 97US-0066772P.  
 PR 11-DEC-1997; 97US-0069335P.  
 PR 12-DEC-1997; 97US-0069425P.  
 PR 17-DEC-1997; 97US-0069870P.  
 PR 18-DEC-1997; 97US-0068017P.  
 PR 10-MAR-1998; 98US-0077450P.  
 PR 11-MAR-1998; 98US-0077632P.  
 PR 11-MAR-1998; 98US-0077649P.  
 PR 20-MAR-1998; 98US-0078886P.  
 PR 20-MAR-1998; 98US-0078939P.  
 PR 27-MAR-1998; 98US-0079564P.  
 PR 27-MAR-1998; 98US-0079786P.  
 PR 31-MAR-1998; 98US-0080107P.  
 PR 31-MAR-1998; 98US-0080194P.  
 PR 01-APR-1998; 98US-0080327P.  
 PR 01-APR-1998; 98US-0080333P.  
 PR 08-APR-1998; 98US-0081049P.  
 PR 08-APR-1998; 98US-0081070P.  
 PR 09-APR-1998; 98US-0081195P.  
 PR 15-APR-1998; 98US-0081338P.  
 PR 21-APR-1998; 98US-0082568P.  
 PR 22-APR-1998; 98US-0082704P.  
 PR 22-APR-1998; 98US-0082797P.  
 PR 28-APR-1998; 98US-0083322P.  
 PR 29-APR-1998; 98US-0083495P.  
 PR 29-APR-1998; 98US-0083496P.  
 PR 29-APR-1998; 98US-0083499P.  
 PR 29-APR-1998; 98US-0083559P.  
 PR 05-MAY-1998; 98US-0084366P.  
 PR 06-MAY-1998; 98US-0084414P.  
 PR 07-MAY-1998; 98US-0084639P.  
 PR 07-MAY-1998; 98US-0084640P.  
 PR 07-MAY-1998; 98US-0084643P.  
 PR 15-MAY-1998; 98US-0085579P.  
 PR 15-MAY-1998; 98US-0085580P.  
 PR 15-MAY-1998; 98US-0085582P.  
 PR 15-MAY-1998; 98US-0085700P.  
 PR 18-MAY-1998; 98US-0086023P.  
 PR 22-MAY-1998; 98US-0086392P.  
 PR 22-MAY-1998; 98US-0086486P.  
 PR 28-MAY-1998; 98US-0087098P.  
 PR 28-MAY-1998; 98US-0087208P.  
 PR 02-JUN-1998; 98US-0087609P.  
 PR 02-JUN-1998; 98US-0087759P.  
 PR 03-JUN-1998; 98US-0087827P.  
 PR 04-JUN-1998; 98US-0088025P.  
 PR 04-JUN-1998; 98US-0088028P.  
 PR 04-JUN-1998; 98US-0088029P.  
 PR 04-JUN-1998; 98US-0088033P.  
 PR 04-JUN-1998; 98US-0088326P.  
 PR 05-JUN-1998; 98US-0088167P.  
 PR 05-JUN-1998; 98US-0088202P.  
 PR 05-JUN-1998; 98US-0088212P.  
 PR 05-JUN-1998; 98US-0088217P.  
 PR 09-JUN-1998; 98US-0088655P.  
 PR 10-JUN-1998; 98US-0088722P.

```
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088875P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089103P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089808P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 24-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 26-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 17-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 10-JUN-1998; 98US-0100338P.
PR 16-SEP-1998; 98US-0100562P.
PR 16-SEP-1998; 98US-0100642P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.
PR 07-OCT-1998; 98US-00168978.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTEGFLGVEKGEAKNSITDSQMDDEVVYITD 60
Db 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTEGFLGVEKGEAKNSITDSQMDDEVVYITD 60
Qy 61 IQYIPCYQLFSGFVNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRRLLHKN 120
Db 61 IQYIPCYQLFSGFVNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRRLLHKN 120
Qy 121 LQEHFSNQDLVFLLLTPSIITESCSTHRLHSLYKPKQGLFHRVPLVYANLGMSEQLGYK 180
Db 121 LQEHFSNQDLVFLLLTPSIITESCSTHRLHSLYKPKQGLFHRVPLVYANLGMSEQLGYK 180
Qy 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASLOBELKSI CKKYEDSEQAV 240
Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASLOBELKSI CKKYEDSEQAV 240
Qy 241 DKLVDVNRLEKRIEKRGAQIQAREKNIQKQPENIFLCOALRFFFPNSEFLHSCVMS 300
Db 241 DKLVDVNRLEKRIEKRGAQIQAREKNIQKQPENIFLCOALRFFFPNSEFLHSCVMS 300
Qy 301 LKRRHVSCKSCNHNHLDVVDNITLVEHTDIPASPASTPQIIKHKALDDRWQFKRS 360
Db 301 LKRRHVSCKSCNHNHLDVVDNITLVEHTDIPASPASTPQIIKHKALDDRWQFKRS 360
Qy 361 RLDDTDKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSTPF 409
Db 361 RLDDTDKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSTPF 409

RESULT 45
ABO00168
ID ABO00168 standard; protein; 409 AA.
XX
AC ABO00168;
```

XX 06-AUG-2003 (first entry)  
DT Novel human secreted and transmembrane protein PRO1013.  
XX  
DE  
XX  
KW Human; gene therapy; tumour necrosis factor alpha; TNF-alpha;  
KW chondrocyte stimulation; tumour; tissue typing.  
XX  
XX Homo sapiens.  
XX  
XX US2003032101-A1.  
XX  
PD 13-FEB-2003.  
XX  
XX 17-JUN-2002; 2002US-00173695.  
XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063734P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 17-DEC-1997; 97US-0069425P.  
PR 18-DEC-1997; 97US-0069870P.  
PR 18-MAR-1998; 97US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 27-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 22-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.

PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 12-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 04-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0055282P.  
PR 10-AUG-1998; 98US-0055998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 10-AUG-1998; 98US-0096017P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.

```
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0098960P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101933P.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102334P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.
PR 07-OCT-1998; 98US-0016897P.
PR 07-OCT-1998; 98US-0103395P.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGFGVLGALAFQHLNTSDTDEGFLGVEKGEAKNSITDSQMDVVEVYITD 60
DB 1 MEGESTSAVLGFGVLGALAFQHLNTSDTDEGFLGVEKGEAKNSITDSQMDVVEVYITD 60
QY 61 IQKYIFCYQLFSFYNSGVEVNEQALKKILSNVKNVGVGKERRHSDQIMTFRELLHKN 120
DB 61 IQKYIFCYQLFSFYNSGVEVNEQALKKILSNVKNVGVGKERRHSDQIMTFRELLHKN 120
QY 121 LQHFNSQDLVFLLLTPTITSCSTHRLHSLYKPKGLFHRVFLVLANLGMSEQLGYK 180
DB 121 LQHFNSQDLVFLLLTPTITSCSTHRLHSLYKPKGLFHRVFLVLANLGMSEQLGYK 180
QY 181 TVSGSCMSTGFSRAVTHSKKFEEDGSLKEVHKINEMVYASLQEBLKSIKCKVEDSEQAV 240
DB 181 TVSGSCMSTGFSRAVTHSKKFEEDGSLKEVHKINEMVYASLQEBLKSIKCKVEDSEQAV 240
QY 241 DKLVDVNLKREIEKRRGAQIAAREKNIQDPQENIFLQALRTFFPNSFLHSCVMS 300
```

```
DB 241 DKLVDVNLKREIEKRRGAQIAAREKNIQDPQENIFLQALRTFFPNSFLHSCVMS 300
QY 301 LKNRHVSKSSCNVNHLDVVDNLTLMVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360
DB 301 LKNRHVSKSSCNVNHLDVVDNLTLMVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360
QY 361 RLDDTQDKRSKANTGSSNQDKASKVSSPETDEEIEKMGFGFYRSRPTF 409
DB 361 RLDDTQDKRSKANTGSSNQDKASKVSSPETDEEIEKMGFGFYRSRPTF 409

RESULT 46
ABO11500
ID ABO11500 standard; protein; 409 AA.
XX ABO11500;
AC AC
XX XX
DT 26-AUG-2003 (first entry)
XX XX
DE Human secreted/transmembrane protein (PRO) #67.
XX XX
KW Human; secreted and transmembrane protein; PRO; TNF-alpha;
KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;
KW tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.
XX OS
XX Homo sapiens.
XX XX
PN US2003036124-A1.
XX XX
PD 20-FEB-2003.
XX XX
PF 26-JUN-2002; 2002US-00180998.
XX XX
PR 18-SEP-1997; 97US-0059263P.
PR 18-SEP-1997; 97US-0059266P.
PR 17-OCT-1997; 97US-0062250P.
PR 21-OCT-1997; 97US-0063486P.
PR 24-OCT-1997; 97US-0063120P.
PR 24-OCT-1997; 97US-0063121P.
PR 28-OCT-1997; 97US-0063540P.
PR 28-OCT-1997; 97US-0063541P.
PR 28-OCT-1997; 97US-0063544P.
PR 28-OCT-1997; 97US-0063564P.
PR 29-OCT-1997; 97US-0063734P.
PR 31-OCT-1997; 97US-0063870P.
PR 31-OCT-1997; 97US-0064103P.
PR 13-NOV-1997; 97US-0065311P.
PR 21-NOV-1997; 97US-0066120P.
PR 24-NOV-1997; 97US-0066456P.
PR 24-NOV-1997; 97US-0066772P.
PR 11-DEC-1997; 97US-0069335P.
PR 12-DEC-1997; 97US-0069425P.
PR 17-DEC-1997; 97US-0069870P.
PR 18-DEC-1997; 97US-0068017P.
PR 10-MAR-1998; 98US-0077450P.
PR 11-MAR-1998; 98US-0077632P.
PR 11-MAR-1998; 98US-0077649P.
PR 20-MAR-1998; 98US-0078886P.
PR 20-MAR-1998; 98US-0078939P.
PR 27-MAR-1998; 98US-0079664P.
PR 27-MAR-1998; 98US-0079786P.
PR 31-MAR-1998; 98US-0080107P.
PR 31-MAR-1998; 98US-0080194P.
PR 01-APR-1998; 98US-0080327P.
PR 01-APR-1998; 98US-0080333P.
PR 08-APR-1998; 98US-0081049P.
PR 08-APR-1998; 98US-0081070P.
PR 09-APR-1998; 98US-0081195P.
PR 15-APR-1998; 98US-0081838P.
PR 21-APR-1998; 98US-0082568P.
PR 21-APR-1998; 98US-0082569P.
```

PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0084366P.  
PR 05-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 12-MAY-1998; 98US-0085579P.  
PR 12-MAY-1998; 98US-0085580P.  
PR 13-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 05-JUN-1998; 98US-0088555P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089553P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 18-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.

PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 18-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 15-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100288P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 17-SEP-1998; 98WO-US019330.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 29-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 29-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102684P.  
PR 01-OCT-1998; 98US-0102687P.  
PR 06-OCT-1998; 98US-0102965P.  
PR 06-OCT-1998; 98US-0103258P.  
PR 06-OCT-1998; 98US-0103449P.

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGVIGALAFQHLNTSDTEGFLGGEVKGAKNSITDSQMDDEVVYITD 60  
Db 1 MEGESTSAVLGSGVIGALAFQHLNTSDTEGFLGGEVKGAKNSITDSQMDDEVVYITD 60  
QY 61 IQKIYPCVQLFSFYNSGEVNEQALKILSNVKNVGVWYKFRHSDOIMTFRELLHKN 120  
Db 61 IQKIYPCVQLFSFYNSGEVNEQALKILSNVKNVGVWYKFRHSDOIMTFRELLHKN 120  
QY 121 LOEHFNSQDLVFLLLTPITITESCSTHRLSHSLYKQKGLFHRVPLVVANLGMSEQLGYK 180  
Db 121 LOEHFNSQDLVFLLLTPITITESCSTHRLSHSLYKQKGLFHRVPLVVANLGMSEQLGYK 180  
QY 181 TVSGSCMTGPRAVQTHSSKFEDGSLKEVHKINEMYASLOBELKICKVDSQAV 240  
Db 181 TVSGSCMTGPRAVQTHSSKFEDGSLKEVHKINEMYASLOBELKICKVDSQAV 240  
QY 241 DKLVKDVNRLKKEIEKRGQAQIAAREKNIQKDPENIFLCOALRTPFPNSEFLHSCVMS 300  
Db 241 DKLVKDVNRLKKEIEKRGQAQIAAREKNIQKDPENIFLCOALRTPFPNSEFLHSCVMS 300  
QY 301 LKNRVKSSSCNHNHLDVVDNLTLMVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360  
Db 301 LKNRVKSSSCNHNHLDVVDNLTLMVHTDIPEASPASTPQIIKHKALDLDLRWQFKRS 360  
QY 361 RLDDTQDKSKANTGSSNQDKASKMSSPETDEIEKMGFGSEYSSPTF 409  
Db 361 RLDDTQDKSKANTGSSNQDKASKMSSPETDEIEKMGFGSEYSSPTF 409  
  
RESULT 47  
ABO02145  
ID ABO02145 standard; protein; 409 AA.  
XX ABO02145;  
XX XX  
DT 09-AUG-2003 (first entry)  
XX Human secreted/transmembrane protein (PRO) #67.  
DE DE  
XX Human; secreted and transmembrane protein; PRO; TNP-alpha;  
KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;  
KW tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;  
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.  
XX  
OS Homo sapiens.  
XX XX  
PN US2003040054-A1.  
XX XX  
PD 27-FEB-2003.  
XX XX  
PF 20-JUN-2002; 2002US-00176479.  
XX XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 21-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 21-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078866P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079564P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084840P.  
PR 07-MAY-1998; 98US-0084843P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089312P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.







Human; secreted and transmembrane protein; PRO; chromosome mapping; gene mapping; gene therapy; tumour necrosis factor alpha; TNF-alpha; chondrocyte; tumour.

Homo sapiens.

US2003036134-A1.

20-FEB-2003.

27-JUN-2002; 2002US-00184631.

18-SEP-1997; 97US-0059263P.

18-SEP-1997; 97US-0059266P.

17-OCT-1997; 97US-0062250P.

21-OCT-1997; 97US-0063486P.

24-OCT-1997; 97US-0063120P.

24-OCT-1997; 97US-0063121P.

28-OCT-1997; 97US-0063540P.

28-OCT-1997; 97US-0063541P.

28-OCT-1997; 97US-0063544P.

28-OCT-1997; 97US-0063564P.

29-OCT-1997; 97US-0063734P.

31-OCT-1997; 97US-0063870P.

31-OCT-1997; 97US-0064103P.

13-NOV-1997; 97US-0065311P.

21-NOV-1997; 97US-0066120P.

24-NOV-1997; 97US-0066466P.

24-NOV-1997; 97US-0066772P.

11-DEC-1997; 97US-0069335P.

12-DEC-1997; 97US-0069425P.

17-DEC-1997; 97US-0069870P.

18-DEC-1997; 97US-0068017P.

10-MAR-1998; 98US-0077450P.

11-MAR-1998; 98US-0077632P.

11-MAR-1998; 98US-0077649P.

20-MAR-1998; 98US-0078886P.

20-MAR-1998; 98US-0078939P.

27-MAR-1998; 98US-0079664P.

27-MAR-1998; 98US-0079786P.

31-MAR-1998; 98US-0080107P.

31-MAR-1998; 98US-0080194P.

01-APR-1998; 98US-0080327P.

01-APR-1998; 98US-0080333P.

08-APR-1998; 98US-0081049P.

08-APR-1998; 98US-0081070P.

09-APR-1998; 98US-0081195P.

15-APR-1998; 98US-0081838P.

21-APR-1998; 98US-0082568P.

21-APR-1998; 98US-0082569P.

22-APR-1998; 98US-0082704P.

22-APR-1998; 98US-0082797P.

28-APR-1998; 98US-0083322P.

29-APR-1998; 98US-0083495P.

29-APR-1998; 98US-0083496P.

29-APR-1998; 98US-0083499P.

29-APR-1998; 98US-0083559P.

05-MAY-1998; 98US-0084366P.

06-MAY-1998; 98US-0084414P.

07-MAY-1998; 98US-0084639P.

07-MAY-1998; 98US-0084640P.

07-MAY-1998; 98US-0084643P.

15-MAY-1998; 98US-0085579P.

15-MAY-1998; 98US-0085580P.

15-MAY-1998; 98US-0085582P.

15-MAY-1998; 98US-0085700P.

18-MAY-1998; 98US-0086023P.

22-MAY-1998; 98US-0086392P.

22-MAY-1998; 98US-0086466P.

28-MAY-1998; 98US-0087098P.

28-MAY-1998; 98US-0087208P.

02-JUN-1998; 98US-0087609P.

02-JUN-1998; 98US-0087759P.

KW	17-SEP-1998;	98US-0100683P.	Query Match	100.0%;	Score 409;	DB 6;	Length 409;
KW	17-SEP-1998;	98US-0100684P.	Best Local Similarity	100.0%;	Pred. No. 0;		
XX	17-SEP-1998;	98US-0100919P.	Matches 409;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
XX	17-SEP-1998;	98US-0100930P.	1	MEGESTSAVLGSGVLCALAFQHLNTDSDTEGFLGKVGKAKNSITDSQMDVDVEVVYITD	60		
OS	18-SEP-1998;	98US-0100849P.	1	MEGESTSAVLGSGVLCALAFQHLNTDSDTEGFLGKVGKAKNSITDSQMDVDVEVVYITD	60		
XX	18-SEP-1998;	98US-0101014P.	61	IQKYPICYQLFSFYNSSGVEVNEQALKKILSNVKNVGVGKFRHSDDQIMTFRERLLHKN	120		
XX	18-SEP-1998;	98US-0101068P.	61	IQKYPICYQLFSFYNSSGVEVNEQALKKILSNVKNVGVGKFRHSDDQIMTFRERLLHKN	120		
PN	23-SEP-1998;	98US-0101471P.	121	LQHFNSQDVLVFLLLTSPITSCSTRLEHSLYKPKGLFHRVPLVAVNGLGMSQGLYK	180		
XX	23-SEP-1998;	98US-0101472P.	121	LQHFNSQDVLVFLLLTSPITSCSTRLEHSLYKPKGLFHRVPLVAVNGLGMSQGLYK	180		
XX	23-SEP-1998;	98US-0101475P.	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASYLQEEELKSICKKVEDSEQAV	240		
XX	23-SEP-1998;	98US-0101477P.	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASYLQEEELKSICKKVEDSEQAV	240		
PD	24-SEP-1998;	98US-0101739P.	241	DKLVKDVNRLKREIEKRGAGIQAAAEKNIQKDPQENIFLQALRTFFFNSEFLHSCVMS	300		
XX	24-SEP-1998;	98US-0101739P.	241	DKLVKDVNRLKREIEKRGAGIQAAAEKNIQKDPQENIFLQALRTFFFNSEFLHSCVMS	300		
XX	24-SEP-1998;	98US-0101743P.	301	LKNRHVSKSCNTYHHLVDVNDLTLVHEHTDIPASFPSTPQIIKHKALDLDLDWRQFKKS	360		
XX	24-SEP-1998;	98US-0101739P.	301	LKNRHVSKSCNTYHHLVDVNDLTLVHEHTDIPASFPSTPQIIKHKALDLDLDWRQFKKS	360		
XX	24-SEP-1998;	98US-0101739P.	361	RLLOTQDKRSKANTGSSNQDKASQMSPPETDEIEKMGGEYSRSPPTF	409		
XX	24-SEP-1998;	98US-0101739P.	361	RLLOTQDKRSKANTGSSNQDKASQMSPPETDEIEKMGGEYSRSPPTF	409		
DE	11-AUG-2003	(first entry)					
XX	Human secreted/transmembrane protein (PRO) #67.						

RESULT 49

ABU83414

ID ABU83414 standard; protein; 409 AA.

XX AC ABU83414;

XX AC ABU83414;

XX 11-AUG-2003 (first entry)

DE Human secreted/transmembrane protein (PRO) #67.

XX

```
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088177P.
PR 10-JUN-1998; 98US-0088222P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 11-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089122P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089553P.
PR 18-JUN-1998; 98US-0089508P.
PR 19-JUN-1998; 98US-0089522P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090576P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 18-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097352P.
PR 26-AUG-1998; 98US-0097354P.
PR 26-AUG-1998; 98US-0097555P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097972P.
PR 26-AUG-1998; 98US-0097973P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0097975P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 03-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-01019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101923P.
PR 25-SEP-1998; 98US-0101786P.
PR 25-SEP-1998; 98US-0102207P.
PR 25-SEP-1998; 98US-0102240P.
PR 25-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0102588P.
PR 06-OCT-1998; 98US-0103449P.
PR 07-OCT-1998; 98US-00168978.
Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MEGESTSAVLGSGVLGALAPQHLNTDSTEGFLGKVGKAKNSITDSOMDDVEVVYIID 60
Db 1 MEGESTSAVLGSGVLGALAPQHLNTDSTEGFLGKVGKAKNSITDSOMDDVEVVYIID 60
Qy 61 IQKYPICYQLFSFYNSGVEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRELLHKN 120
Db 61 IQKYPICYQLFSFYNSGVEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRELLHKN 120
Qy 121 LOEHESNODLVFLITPSIITSCSTHRLSHSLYKPKQGLFHRVPLVAVNLGSEQLGYK 180
Db 121 LOEHESNODLVFLITPSIITSCSTHRLSHSLYKPKQGLFHRVPLVAVNLGSEQLGYK 180
Qy 181 TVSGSCMSTGFSRAVQTHSSKFFFEEDGSLKEVHKINEMYASLOEELKSI CKKYVEDSEQAV 240
Db 181 TVSGSCMSTGFSRAVQTHSSKFFFEEDGSLKEVHKINEMYASLOEELKSI CKKYVEDSEQAV 240
Qy 241 DKLKVDNRLKREIEKRGAGIOAAREKNTOKDQENIFLCOALRTFFRSEFLHSCVMS 300
Db 241 DKLKVDNRLKREIEKRGAGIOAAREKNTOKDQENIFLCOALRTFFRSEFLHSCVMS 300
Qy 301 LKNRVSKSCNHNHLDVVDNLTIMVHTDIPASPAFTPOIKKHALDLDRWQFRRS 360
Db 301 LKNRVSKSCNHNHLDVVDNLTIMVHTDIPASPAFTPOIKKHALDLDRWQFRRS 360
```

Db 301 LKNRVKSSCNVHHLDVVDNLTLMVHTDIPASFASTPQIIKHKALDLDNRWQFKRS 360  
QY 361 RLDTQDKRSKANTGSSNQDKASKMSSPETDEETKMKKGFGEYSRSTPF 409  
Db 361 RLDTQDKRSKANTGSSNQDKASKMSSPETDEETKMKKGFGEYSRSTPF 409

RESULT 50  
ABO06215  
ID ABO06215 standard; protein; 409 AA.  
AC ABO06215;  
XX XX  
DT 13-AUG-2003 (first entry)  
XX XX  
DE Novel human secreted and transmembrane protein PRO1013.  
XX XX  
KW Human; secreted and transmembrane protein; PRO; Gene therapy;  
KW Chondrocyte stimulator; chromosome mapping; gene mapping;  
KW transgenic animal; knockout animal; tissue typing;  
KW chondrocyte proliferation; chondrocyte differentiation;  
KW tumour necrosis factor-alpha stimulation; TNF-alpha stimulation.  
XX XX  
OS Homo sapiens.  
XX XX  
FN US2003022294-A1.  
XX XX  
PD 30-JAN-2003.  
XX XX  
PF 19-JUN-2002; 2002US-00175738.  
XX XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 27-MAR-1998; 98US-0078939P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082757P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083435P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 13-MAY-1998; 98US-0085579P.  
PR 13-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 22-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089558P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091628P.

PR	02-JUL-1998;	98US-0091628P.	Db	61	IQKIIPCYQLFSFNSGEVNEQALKILSNKKNVGVYKFRHSDQIMTFRERLLHKN	120
PR	02-JUL-1998;	98US-0091632P.	PR	121	LOEHFSNQDLVFLLLTPSIITESCSTRLEHSLYKPKGLFHRVPLVAVNLGMSQGLGYK	180
PR	04-JUL-1998;	98US-0094006P.	Db	121	LOEHFSNQDLVFLLLTPSIITESCSTRLEHSLYKPKGLFHRVPLVAVNLGMSQGLGYK	180
PR	10-AUG-1998;	98US-0095282P.	Qy	181	TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMVASLOELKSICKKVEDSEQAV	240
PR	10-AUG-1998;	98US-0095998P.	Db	181	TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMVASLOELKSICKKVEDSEQAV	240
PR	10-AUG-1998;	98US-0096012P.	Qy	241	DKLVKDVNRLKREIKRGAQIQAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
PR	17-AUG-1998;	98US-0096757P.	Db	241	DKLVKDVNRLKREIKRGAQIQAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
PR	17-AUG-1998;	98US-0096766P.	Qy	301	LKRVHVKSSCNVNHLDVVNDLTLVVEHTDIPASPASTPQIIKHKALDLDORWQFKRS	360
PR	17-AUG-1998;	98US-0096867P.	Db	301	LKRVHVKSSCNVNHLDVVNDLTLVVEHTDIPASPASTPQIIKHKALDLDORWQFKRS	360
PR	17-AUG-1998;	98US-0096891P.	Qy	361	RLDITQDKRSKANTGSSNQDKASKMSSPETDEIEIKMKGFGEYSRSPTF	409
PR	17-AUG-1998;	98US-0096897P.	Db	361	RLDITQDKRSKANTGSSNQDKASKMSSPETDEIEIKMKGFGEYSRSPTF	409
PR	18-AUG-1998;	98US-0096949P.	Qy			
PR	18-AUG-1998;	98US-0096959P.	Db			
PR	18-AUG-1998;	98US-0097022P.	Qy			
PR	18-AUG-1998;	98US-0097022P.	Db			
PR	26-AUG-1998;	98US-0097952P.	Qy			
PR	26-AUG-1998;	98US-0097954P.	Db			
PR	26-AUG-1998;	98US-0097955P.	Qy			
PR	26-AUG-1998;	98US-0097971P.	Db			
PR	26-AUG-1998;	98US-0097974P.	Qy			
PR	26-AUG-1998;	98US-0098014P.	Db			
PR	01-SEP-1998;	98US-0098716P.	Qy			
PR	01-SEP-1998;	98US-0098723P.	Db			
PR	02-SEP-1998;	98US-0098603P.	Qy			
PR	02-SEP-1998;	98US-0098821P.	Db			
PR	02-SEP-1998;	98US-0098843P.	Qy			
PR	09-SEP-1998;	98US-0099602P.	Db			
PR	10-SEP-1998;	98US-0099741P.	Qy			
PR	10-SEP-1998;	98US-0099754P.	Db			
PR	10-SEP-1998;	98US-0099763P.	Qy			
PR	10-SEP-1998;	98US-0099812P.	Db			
PR	15-SEP-1998;	98US-0100388P.	Qy			
PR	16-SEP-1998;	98US-0100662P.	Db			
PR	16-SEP-1998;	98US-0100664P.	Qy			
PR	16-SEP-1998;	98US-0101751P.	Db			
PR	16-SEP-1998;	98US-0101751P.	Qy			
PR	17-SEP-1998;	98US-0100683P.	Db			
PR	17-SEP-1998;	98US-0100684P.	Qy			
PR	17-SEP-1998;	98US-0100919P.	Db			
PR	17-SEP-1998;	98US-0100930P.	Qy			
PR	18-SEP-1998;	98US-0100849P.	Db			
PR	18-SEP-1998;	98US-0100849P.	Qy			
PR	18-SEP-1998;	98US-0101068P.	Db			
PR	23-SEP-1998;	98US-0101471P.	Qy			
PR	23-SEP-1998;	98US-0101472P.	Db			
PR	23-SEP-1998;	98US-0101475P.	Qy			
PR	23-SEP-1998;	98US-0101477P.	Db			
PR	24-SEP-1998;	98US-0101738P.	Qy			
PR	24-SEP-1998;	98US-0101739P.	Db			
PR	24-SEP-1998;	98US-0101743P.	Qy			
PR	24-SEP-1998;	98US-0101922P.	Db			
PR	25-SEP-1998;	98US-0101786P.	Qy			
PR	25-SEP-1998;	98US-0102207P.	Db			
PR	29-SEP-1998;	98US-0102240P.	Qy			
PR	29-SEP-1998;	98US-0102330P.	Db			
PR	29-SEP-1998;	98US-0102331P.	Qy			
PR	30-SEP-1998;	98US-0102487P.	Db			
PR	30-SEP-1998;	98US-0102570P.	Qy			
PR	30-SEP-1998;	98US-0102571P.	Db			
PR	01-OCT-1998;	98US-0102684P.	Qy			
PR	01-OCT-1998;	98US-0102687P.	Db			
PR	02-OCT-1998;	98US-0102965P.	Qy			
PR	06-OCT-1998;	98US-0103258P.	Db			
PR	06-OCT-1998;	98US-0103449P.	Qy			
PR	06-OCT-1998;	98US-0103449P.	Db			

Query Match 100.0%; Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEGESTAVLSGVLGALAFQHLNTSDTEGFLGVEKGAKNISITDSQMDDVVVYITID	60
Db	1	MEGESTAVLSGVLGALAFQHLNTSDTEGFLGVEKGAKNISITDSQMDDVVVYITID	60
Qy	61	IQKIIPCYQLFSFNSGEVNEQALKILSNKKNVGVYKFRHSDQIMTFRERLLHKN	120

Human secreted polypeptide PRO1013, SEQ ID NO:134.

Human; PRO; secreted protein; transmembrane protein; extracellular domain; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; proliferation; differentiation; cartilage disorder; bone disorder; arthritis; sports injury; cancer; tumour; diagnosis; adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix; liver; drug screening; transgenic animal; genetic analysis; antiarthritic; vulnery; gene therapy.

Homo sapiens.

PR	11-MAR-1998;	98US-0077649P.	PR	24-JUN-1998;	98US-0090444P.
PR	20-MAR-1998;	98US-0076886P.	PR	24-JUN-1998;	98US-0090461P.
PR	20-MAR-1998;	98US-0078933P.	PR	24-JUN-1998;	98US-0090535P.
PR	27-MAR-1998;	98US-0079664P.	PR	25-JUN-1998;	98US-0090540P.
PR	27-MAR-1998;	98US-0079786P.	PR	25-JUN-1998;	98US-0090676P.
PR	31-MAR-1998;	98US-0080107P.	PR	25-JUN-1998;	98US-0090678P.
PR	31-MAR-1998;	98US-0080194P.	PR	25-JUN-1998;	98US-0090688P.
PR	01-APR-1998;	98US-0080327P.	PR	25-JUN-1998;	98US-0090690P.
PR	01-APR-1998;	98US-0080333P.	PR	25-JUN-1998;	98US-0090694P.
PR	08-APR-1998;	98US-0081049P.	PR	25-JUN-1998;	98US-0090695P.
PR	08-APR-1998;	98US-0081070P.	PR	25-JUN-1998;	98US-0090696P.
PR	09-APR-1998;	98US-0081195P.	PR	25-JUN-1998;	98US-0090699P.
PR	15-APR-1998;	98US-0081838P.	PR	26-JUN-1998;	98US-00905413.
PR	21-APR-1998;	98US-0082568P.	PR	26-JUN-1998;	98US-0090562P.
PR	21-APR-1998;	98US-0082569P.	PR	26-JUN-1998;	98US-0090563P.
PR	22-APR-1998;	98US-0082704P.	PR	26-JUN-1998;	98US-0090563P.
PR	22-APR-1998;	98US-0082797P.	PR	01-JUL-1998;	98US-0091010P.
PR	26-APR-1998;	98US-0083322P.	PR	01-JUL-1998;	98US-0091359P.
PR	29-APR-1998;	98US-0083495P.	PR	02-JUL-1998;	98US-0091544P.
PR	29-APR-1998;	98US-0083496P.	PR	02-JUL-1998;	98US-0091478P.
PR	29-APR-1998;	98US-0083499P.	PR	02-JUL-1998;	98US-0091486P.
PR	29-APR-1998;	98US-0083559P.	PR	02-JUL-1998;	98US-0091626P.
PR	05-MAY-1998;	98US-0084366P.	PR	02-JUL-1998;	98US-0091628P.
PR	06-MAY-1998;	98US-0084414P.	PR	02-JUL-1998;	98US-0091632P.
PR	07-MAY-1998;	98US-0084639P.	PR	02-JUL-1998;	98US-0091632P.
PR	07-MAY-1998;	98US-0084640P.	PR	02-JUL-1998;	98US-0091632P.
PR	07-MAY-1998;	98US-0084643P.	PR	02-JUL-1998;	98US-0091632P.
PR	15-MAY-1998;	98US-0085579P.	PR	02-JUL-1998;	98US-0091632P.
PR	15-MAY-1998;	98US-0085580P.	PR	02-JUL-1998;	98US-0091632P.
PR	15-MAY-1998;	98US-0085582P.	PR	02-JUL-1998;	98US-0091632P.
PR	15-MAY-1998;	98US-0085700P.	PR	02-JUL-1998;	98US-0091632P.
PR	18-MAY-1998;	98US-0086023P.	PR	02-JUL-1998;	98US-0091632P.
PR	22-MAY-1998;	98US-0086392P.	PR	02-JUL-1998;	98US-0091632P.
PR	22-MAY-1998;	98US-0086486P.	PR	02-JUL-1998;	98US-0091632P.
PR	22-MAY-1998;	98US-0087098P.	PR	02-JUL-1998;	98US-0091632P.
PR	28-MAY-1998;	98US-0087208P.	PR	02-JUL-1998;	98US-0091632P.
PR	02-JUN-1998;	98US-0087609P.	PR	02-JUL-1998;	98US-0091632P.
PR	02-JUN-1998;	98US-0087759P.	PR	02-JUL-1998;	98US-0091632P.
PR	02-JUN-1998;	98US-0087827P.	PR	02-JUL-1998;	98US-0091632P.
PR	02-JUN-1998;	98US-0088025P.	PR	02-JUL-1998;	98US-0091632P.
PR	04-JUN-1998;	98US-0088028P.	PR	02-JUL-1998;	98US-0091632P.
PR	04-JUN-1998;	98US-0088029P.	PR	02-JUL-1998;	98US-0091632P.
PR	04-JUN-1998;	98US-0088033P.	PR	02-JUL-1998;	98US-0091632P.
PR	04-JUN-1998;	98US-0088326P.	PR	02-JUL-1998;	98US-0091632P.
PR	05-JUN-1998;	98US-0088167P.	PR	02-JUL-1998;	98US-0091632P.
PR	05-JUN-1998;	98US-0088202P.	PR	02-JUL-1998;	98US-0091632P.
PR	05-JUN-1998;	98US-0088212P.	PR	02-JUL-1998;	98US-0091632P.
PR	05-JUN-1998;	98US-0088217P.	PR	02-JUL-1998;	98US-0091632P.
PR	09-JUN-1998;	98US-0088655P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088722P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088738P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088740P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088811P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088824P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088825P.	PR	02-JUL-1998;	98US-0091632P.
PR	10-JUN-1998;	98US-0088826P.	PR	02-JUL-1998;	98US-0091632P.
PR	11-JUN-1998;	98US-0088861P.	PR	02-JUL-1998;	98US-0091632P.
PR	11-JUN-1998;	98US-0088863P.	PR	02-JUL-1998;	98US-0091632P.
PR	11-JUN-1998;	98US-0088876P.	PR	02-JUL-1998;	98US-0091632P.
PR	11-JUN-1998;	98US-0089090P.	PR	02-JUL-1998;	98US-0091632P.
PR	12-JUN-1998;	98US-0089105P.	PR	02-JUL-1998;	98US-0091632P.
PR	16-JUN-1998;	98US-0089512P.	PR	02-JUL-1998;	98US-0091632P.
PR	16-JUN-1998;	98US-0089514P.	PR	02-JUL-1998;	98US-0091632P.
PR	17-JUN-1998;	98US-0089538P.	PR	02-JUL-1998;	98US-0091632P.
PR	17-JUN-1998;	98US-0089598P.	PR	02-JUL-1998;	98US-0091632P.
PR	17-JUN-1998;	98US-0089653P.	PR	02-JUL-1998;	98US-0091632P.
PR	18-JUN-1998;	98US-0089808P.	PR	02-JUL-1998;	98US-0091632P.
PR	19-JUN-1998;	98US-0089952P.	PR	02-JUL-1998;	98US-0091632P.
PR	22-JUN-1998;	98US-0090246P.	PR	02-JUL-1998;	98US-0091632P.
PR	22-JUN-1998;	98US-0090252P.	PR	02-JUL-1998;	98US-0091632P.
PR	22-JUN-1998;	98US-0090253P.	PR	02-JUL-1998;	98US-0091632P.
PR	24-JUN-1998;	98US-0090429P.	PR	02-JUL-1998;	98US-0091632P.
PR	24-JUN-1998;	98US-0090435P.	PR	02-JUL-1998;	98US-0091632P.





PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 17-JUN-1998; 98US-0089908P.  
PR 18-JUN-1998; 98US-0089922P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090689P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-0090813.  
PR 26-JUN-1998; 98US-0090822P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 02-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 01-SEP-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 02-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100622P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98WO-US019330.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.

PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 29-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 29-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102684P.  
PR 01-OCT-1998; 98US-0102687P.  
PR 02-OCT-1998; 98US-0102965P.  
PR 06-OCT-1998; 98US-0103258P.  
PR 06-OCT-1998; 98US-0103449P.

Query Match 100.0%; Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEGESTSAVLGSGFVLGALAFQHLNTDSTEGFLGKVGKAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGSGFVLGALAFQHLNTDSTEGFLGKVGKAKNSITDSQMDVVEVYITD 60  
Qy 61 IQYIPCYQLFSPYNSGGEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRLLHKN 120  
Db 61 IQYIPCYQLFSPYNSGGEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRLLHKN 120  
Qy 121 LQEHFNSQDLVFLLLTPSIITSCSTRLEHSLYKPKGLFHRVPLVWNLGMSQOLGYK 180  
Db 121 LQEHFNSQDLVFLLLTPSIITSCSTRLEHSLYKPKGLFHRVPLVWNLGMSQOLGYK 180  
Qy 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASLOEBLKICKKVEDEBQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASLOEBLKICKKVEDEBQAV 240  
Qy 241 DKLVKDVNRLKREIKRGAQIQAREKNIQKDPENIFLCOALRTFFNSEFLHSCVMS 300  
Db 241 DKLVKDVNRLKREIKRGAQIQAREKNIQKDPENIFLCOALRTFFNSEFLHSCVMS 300  
Qy 301 LKRVHYSKSCNHNHLDVVDNLTLWVHTDIPASPASTPOIHKHKLDDDRWQFKRS 360  
Db 301 LKRVHYSKSCNHNHLDVVDNLTLWVHTDIPASPASTPOIHKHKLDDDRWQFKRS 360  
Qy 361 RLDDTQDKRSKANTGSSNODKASKMSSPETDEIEKMGFGFYSRSPTF 409  
Db 361 RLDDTQDKRSKANTGSSNODKASKMSSPETDEIEKMGFGFYSRSPTF 409

#### RESULT 53

ABO19177  
ID ABO19177 standard; protein; 409 AA.

XX ABO19177;

AC ABO19177;

XX 27-AUG-2003 (first entry)

DT Novel human secreted and transmembrane protein PRO1013.

DE Human; secreted and transmembrane protein; PRO; chromosome mapping;  
KW gene mapping; transgenic animal; knockout animal; tissue typing;  
KW chromosome identification; tumour; chondrocyte proliferation;  
KW chondrocyte differentiation; tumour necrosis factor-alpha release;  
KW gene therapy.

XX OS Homo sapiens.  
XX PN US2003036118-A1.  
XX PD 20-FEB-2003.  
XX PF 21-JUN-2002; 2002US-00176760.  
XX PR 26-JUN-1998; 98US-00105413.  
PR 16-SEP-1998; 98WO-US019330.  
PR 07-OCT-1998; 98US-00168978.  
PR 07-OCT-1998; 98WO-US021141.  
PR 06-NOV-1998; 98US-00187368.  
PR 01-DEC-1998; 98WO-US025108.  
PR 07-DEC-1998; 98US-00202054.  
PR 03-MAR-1999; 99US-00254311.  
PR 08-MAR-1999; 99WO-US005028.  
PR 14-MAY-1999; 99US-00311832.  
PR 14-MAY-1999; 99WO-US010733.  
PR 02-JUN-1999; 99WO-US012252.  
PR 25-AUG-1999; 99US-00380137.  
PR 25-AUG-1999; 99US-00380138.  
PR 25-AUG-1999; 99US-00380139.  
PR 25-AUG-1999; 99US-00380142.  
PR 01-SEP-1999; 99WO-US020111.  
PR 15-SEP-1999; 99WO-US021090.  
PR 18-OCT-1999; 99US-00403297.  
PR 12-NOV-1999; 99US-00423844.  
PR 01-DEC-1999; 99WO-US028301.  
PR 02-DEC-1999; 99WO-US028551.  
PR 30-DEC-1999; 99WO-US031274.  
PR 05-JAN-2000; 2000WO-US000219.  
PR 18-FEB-2000; 2000WO-US004341.  
PR 18-FEB-2000; 2000WO-US004342.  
PR 22-FEB-2000; 2000WO-US004444.  
PR 24-FEB-2000; 2000WO-US005004.  
PR 01-MAR-2000; 2000WO-US005601.  
PR 02-MAR-2000; 2000WO-US005841.  
PR 15-MAR-2000; 2000WO-US006884.  
PR 30-MAR-2000; 2000WO-US008439.  
PR 17-MAY-2000; 2000WO-US013705.  
PR 22-MAY-2000; 2000WO-US014042.  
PR 30-MAY-2000; 2000WO-US014941.  
PR 02-JUN-2000; 2000WO-US015264.  
PR 28-JUL-2000; 2000WO-US020710.  
PR 22-AUG-2000; 2000US-00644848.  
PR 24-AUG-2000; 2000WO-US023328.  
PR 18-SEP-2000; 2000US-00664610.  
PR 08-NOV-2000; 2000US-00665350.  
PR 08-NOV-2000; 2000US-00709238.  
PR 01-DEC-2000; 2000WO-US030952.  
PR 20-DEC-2000; 2000US-00747259.  
PR 20-DEC-2000; 2000US-0034956.  
PR 28-FEB-2001; 2001WO-US006520.  
PR 22-MAR-2001; 2001US-00816744.  
PR 10-MAY-2001; 2001US-00854208.  
PR 10-MAY-2001; 2001US-00854280.  
PR 25-MAY-2001; 2001US-00866028.  
PR 01-JUN-2001; 2001WO-US017800.  
PR 05-JUN-2001; 2001US-00874503.  
PR 20-JUN-2001; 2001WO-US019692.  
PR 29-JUN-2001; 2001WO-US021066.  
PR 09-JUL-2001; 2001WO-US021735.  
PR 18-JUL-2001; 2001US-00908827.  
PR 30-JUL-2001; 2001US-00918585.  
PR 06-AUG-2001; 2001US-00924419.  
PR 13-AUG-2001; 2001US-00929404.  
PR 16-AUG-2001; 2001US-00931836.  
PR 28-AUG-2001; 2001US-00941992.  
PR 29-AUG-2001; 2001WO-US027099.  
PR 04-SEP-2001; 2001US-00946374.

PR 15-JAN-2002; 2002US-00052586.  
XX (GETH ) GENENTECH INC.  
XX Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;  
PI Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;  
XX WPI; 2003-402071/38.  
DR N-PSDB; ACD25424.  
XX New secreted and transmembrane PRO polypeptides and nucleic acids, useful  
PT in gene therapy, chromosome identification, tissue typing, for detecting  
PT the presence of tumor in a mammal, or as hybridization probes in gene  
PT mapping.  
XX Claim 11; SEQ ID NO 134; 707pp; English.  
XX The invention describes a novel isolated PRO polypeptide. The PRO  
CC polypeptide or anti-PRO antibody is useful for preparing a medicament for  
CC treating a condition that is responsive to the PRO polypeptide or anti-  
CC PRO antibody. The PRO nucleotide sequences are useful as hybridisation  
CC probes in chromosome and gene mapping, or in generating antisense RNA and  
CC DNA. PRO nucleic acids are also useful in preparing PRO polypeptides, in  
CC assays to identify other proteins or molecules involved in binding  
CC reaction, to generate transgenic animals or knockout animals, which in  
CC turn are useful in the development and screening of therapeutically  
CC useful reagents, for chromosome identification, and tissue typing. The  
CC PRO polypeptides and nucleic acid molecules are also useful for detecting  
CC the presence of tumour in a mammal, stimulating proliferation or  
CC differentiation of chondrocyte cells, stimulating the release of tumour  
CC necrosis factor-alpha from human blood, in gene therapy, or as molecular  
CC weight markers for protein electrophoresis purposes. The anti-PRO  
CC antibodies may be used in diagnostic assays for PRO, or for the affinity  
CC purification of PRO from recombinant cell culture or natural sources.  
CC This is the amino acid sequence of a novel human secreted and  
CC transmembrane PRO polypeptide  
XX Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 MEGESTSAVLSGFVLGALAFQHLNTSDTEGFLGVEKGEAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLSGFVLGALAFQHLNTSDTEGFLGVEKGEAKNSITDSQMDVVEVYITD 60  
Qy 61 IQKIIPCYQLFSFYNSSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRELLHKN 120  
Db 61 IQKIIPCYQLFSFYNSSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFRELLHKN 120  
Qy 121 LQEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVLANLGMSEQLGYK 180  
Db 121 LQEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVLANLGMSEQLGYK 180  
Qy 181 TVSGSCMSTGFSRAVQTHSKPFEDGSLKEVHKINEMVASLQEELEKSKCKVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSKPFEDGSLKEVHKINEMVASLQEELEKSKCKVEDSEQAV 240  
Qy 241 DKLVKDVNRLKREIEKRGAGAIQAAEKNIQKDPQNIIFLQALRTFFPNSFLHSCVMS 300  
Db 241 DKLVKDVNRLKREIEKRGAGAIQAAEKNIQKDPQNIIFLQALRTFFPNSFLHSCVMS 300  
Qy 301 LKNRHSVSKSCNYYHLDVVNLTLLVHTDIPASPASTPQIHKHALDLDLRWQFKKS 360  
Db 301 LKNRHSVSKSCNYYHLDVVNLTLLVHTDIPASPASTPQIHKHALDLDLRWQFKKS 360  
Qy 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEIERKMGFGEYSRSTPF 409  
Db 361 RLDDTDQKRSKANTGSSNQDKASKMSSPETDEIERKMGFGEYSRSTPF 409

RESULT 54

AB011195	AB011195 standard; protein; 409 AA.
ID	AB011195 standard; protein; 409 AA.
XX	AC
XX	AB011195;
XX	
XX	25-AUG-2003 (first entry)
XX	
DE	Human secreted/transmembrane protein
XX	
KW	Human; secreted and transmembrane protein
KW	tumour necrosis factor alpha; chondro-
KW	tissue typing; adrenal tumour; lung
KW	prostate tumour; rectal tumour; cervical
XX	
OS	Homo sapiens.
XX	
XX	US2003036123-A1.
XX	
PD	20-FEB-2003.
XX	
XX	25-JUN-2002; 2002US-00180551.
XX	
PR	18-SEP-1997; 97US-0059263P.
PR	18-SEP-1997; 97US-0059266P.
PR	17-OCT-1997; 97US-0062250P.
PR	21-OCT-1997; 97US-0063486P.
PR	24-OCT-1997; 97US-0063120P.
PR	24-OCT-1997; 97US-0063121P.
PR	28-OCT-1997; 97US-0063340P.
PR	28-OCT-1997; 97US-0063341P.
PR	28-OCT-1997; 97US-0063344P.
PR	28-OCT-1997; 97US-0063356P.
PR	29-OCT-1997; 97US-0063734P.
PR	31-OCT-1997; 97US-0063870P.
PR	31-OCT-1997; 97US-0064103P.
PR	31-NOV-1997; 97US-0065311P.
PR	21-NOV-1997; 97US-0066120P.
PR	24-NOV-1997; 97US-0066466P.
PR	24-NOV-1997; 97US-0066772P.
PR	11-DEC-1997; 97US-0069335P.
PR	12-DEC-1997; 97US-0069425P.
PR	17-DEC-1997; 97US-0069870P.
PR	18-DEC-1997; 97US-0068017P.
PR	10-MAR-1998; 98US-0077450P.
PR	11-MAR-1998; 98US-0077632P.
PR	11-MAR-1998; 98US-0077649P.
PR	20-MAR-1998; 98US-0078866P.
PR	20-MAR-1998; 98US-0078939P.
PR	27-MAR-1998; 98US-0079654P.
PR	27-MAR-1998; 98US-0079786P.
PR	31-MAR-1998; 98US-0080107P.
PR	31-MAR-1998; 98US-0080194P.
PR	01-APR-1998; 98US-0080337P.
PR	01-APR-1998; 98US-0080338P.
PR	08-APR-1998; 98US-0081049P.
PR	08-APR-1998; 98US-0081070P.
PR	09-APR-1998; 98US-0081195P.
PR	15-APR-1998; 98US-0081838P.
PR	21-APR-1998; 98US-0082566P.
PR	21-APR-1998; 98US-0082569P.
PR	22-APR-1998; 98US-0082704P.
PR	22-APR-1998; 98US-0082797P.
PR	28-APR-1998; 98US-0083322P.
PR	29-APR-1998; 98US-0083435P.
PR	29-APR-1998; 98US-0083496P.
PR	29-APR-1998; 98US-0083499P.
PR	05-MAY-1998; 98US-0084366P.
PR	06-MAY-1998; 98US-0084414P.
PR	07-MAY-1998; 98US-0084639P.
PR	07-MAY-1998; 98US-0084640P.
PR	15-MAY-1998; 98US-0085579P.

PR	17-AUG-1998;	98US-0096867P.	Query Match	100.08;	Score 409;	DB 6;	Length 409;
PR	17-AUG-1998;	98US-00968891P.	Best Local Similarity	100.08;	Pred. No. 0;		
PR	17-AUG-1998;	98US-00968897P.	Matches 409;	Conservative	0;	Mismatches	0;
PR	18-AUG-1998;	98US-00969497P.					
PR	18-AUG-1998;	98US-00969599P.					
PR	18-AUG-1998;	98US-0097032P.					
PR	26-AUG-1998;	98US-0097952P.					
PR	26-AUG-1998;	98US-0097954P.					
PR	26-AUG-1998;	98US-0097955P.					
PR	26-AUG-1998;	98US-0097971P.					
PR	26-AUG-1998;	98US-0097974P.					
PR	01-SEP-1998;	98US-0098014P.					
PR	01-SEP-1998;	98US-0098716P.					
PR	01-SEP-1998;	98US-0098723P.					
PR	02-SEP-1998;	98US-0098803P.					
PR	02-SEP-1998;	98US-0098821P.					
PR	02-SEP-1998;	98US-0098843P.					
PR	09-SEP-1998;	98US-0099602P.					
PR	10-SEP-1998;	98US-0099741P.					
PR	10-SEP-1998;	98US-0099754P.					
PR	10-SEP-1998;	98US-0099763P.					
PR	10-SEP-1998;	98US-0099812P.					
PR	15-SEP-1998;	98US-0100388P.					
PR	16-SEP-1998;	98US-0100662P.					
PR	16-SEP-1998;	98US-0100664P.					
PR	16-SEP-1998;	98US-0101751P.					
PR	16-SEP-1998;	98MO-US019330.					
PR	17-SEP-1998;	98US-0100683P.					
PR	17-SEP-1998;	98US-0100684P.					
PR	17-SEP-1998;	98US-0100919P.					
PR	17-SEP-1998;	98US-0100930P.					
PR	18-SEP-1998;	98US-0100849P.					
PR	18-SEP-1998;	98US-0101014P.					
PR	18-SEP-1998;	98US-0101068P.					
PR	23-SEP-1998;	98US-0101471P.					
PR	23-SEP-1998;	98US-0101472P.					
PR	23-SEP-1998;	98US-0101475P.					
PR	23-SEP-1998;	98US-0101477P.					
PR	24-SEP-1998;	98US-0101738P.					
PR	24-SEP-1998;	98US-0101739P.					
PR	24-SEP-1998;	98US-0101743P.					
PR	24-SEP-1998;	98US-0101922P.					
PR	25-SEP-1998;	98US-0101788P.					
PR	29-SEP-1998;	98US-0102207P.					
PR	29-SEP-1998;	98US-0102240P.					
PR	29-SEP-1998;	98US-0102330P.					
PR	29-SEP-1998;	98US-0102331P.					
PR	30-SEP-1998;	98US-0102487P.					
PR	30-SEP-1998;	98US-0102570P.					
PR	30-SEP-1998;	98US-0102571P.					
PR	01-OCT-1998;	98US-0102684P.					
PR	01-OCT-1998;	98US-0102687P.					
PR	02-OCT-1998;	98US-0102965P.					
PR	06-OCT-1998;	98US-0103259P.					
PR	06-OCT-1998;	98US-0103449P.					

Db	181	TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMASYLOELKICKVEDEQAV	240
QY	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKQPQENIFLCOALRFFPNSEFLHSCVMS	300
Db	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKQPQENIFLCOALRFFPNSEFLHSCVMS	300
QY	301	LKNRHVSKSSCNYNHHLVDVNLTLWVEHTDIPASPASTPOIIKHKALDLDNRWQFKRS	360
Db	301	LKNRHVSKSSCNYNHHLVDVNLTLWVEHTDIPASPASTPOIIKHKALDLDNRWQFKRS	360
QY	361	RLLDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF	409
Db	361	RLLDTDQKRSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF	409
RESULT 55			
ABR66813			
ID	ABR66813 standard; protein; 409 AA.		
XX			
AC	ABR66813;		
XX			
DT	05-AUG-2003 (first entry)		
XX			
DE	Human secreted polypeptide PRO1013, SEQ ID NO:134.		
XX			
KW	Human; PRO; secreted protein; transmembrane protein;		
KW	extracellular domain; tumour necrosis factor-alpha; TNF-alpha;		
KW	chondrocyte; proliferation; differentiation; cartilage disorder;		
KW	bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;		
KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;		
KW	liver; drug screening; transgenic animal; genetic analysis;		
KW	antiarthritic; vulnery; gene therapy.		
XX			
OS	Homo sapiens.		
XX			
PN	US2003036148-A1.		
XX			
PD	20-FEB-2003.		
XX			
PF	02-JUL-2002; 2002US-00187743.		
XX			
PR	18-SEP-1997;	97US-0059263P.	
PR	18-SEP-1997;	97US-0059266P.	
PR	17-OCT-1997;	97US-0062250P.	
PR	21-OCT-1997;	97US-0063486P.	
PR	24-OCT-1997;	97US-0063120P.	
PR	24-OCT-1997;	97US-0063121P.	
PR	28-OCT-1997;	97US-0063540P.	
PR	28-OCT-1997;	97US-0063541P.	
PR	28-OCT-1997;	97US-0063544P.	
PR	28-OCT-1997;	97US-0063564P.	
PR	29-OCT-1997;	97US-0063734P.	
PR	31-OCT-1997;	97US-0063870P.	
PR	31-OCT-1997;	97US-0064103P.	
PR	13-NOV-1997;	97US-0065311P.	
PR	21-NOV-1997;	97US-0066120P.	
PR	24-NOV-1997;	97US-0066466P.	
PR	24-NOV-1997;	97US-0066772P.	
PR	11-DEC-1997;	97US-0069335P.	
PR	12-DEC-1997;	97US-0069425P.	
PR	17-DEC-1997;	97US-0069870P.	
PR	18-DEC-1997;	97US-0068017P.	
PR	10-MAR-1998;	98US-0077450P.	
PR	11-MAR-1998;	98US-0077632P.	
PR	11-MAR-1998;	98US-0077649P.	
PR	20-MAR-1998;	98US-0078866P.	
PR	20-MAR-1998;	98US-0078939P.	
PR	27-MAR-1998;	98US-0079664P.	
PR	27-MAR-1998;	98US-0079786P.	
PR	31-MAR-1998;	98US-0080107P.	
PR	31-MAR-1998;	98US-0080194P.	
PR	01-APR-1998;	98US-0080327P.	

25-JUN-1998;	98US-00906094P;
25-JUN-1998;	98US-00906095P;
25-JUN-1998;	98US-00906096P;
26-JUN-1998;	98US-00105413;
26-JUN-1998;	98US-00908042P;
26-JUN-1998;	98US-00908043P;
26-JUN-1998;	98US-00910103P;
26-JUN-1998;	98US-00910104P;
01-JUL-1998;	98US-0091359P;
01-JUL-1998;	98US-0091544P;
02-JUL-1998;	98US-0091478P;
02-JUL-1998;	98US-0091486P;
02-JUL-1998;	98US-0091624P;
02-JUL-1998;	98US-0091628P;
02-JUL-1998;	98US-0091632P;
04-JUL-1998;	98US-0094006P;
04-AUG-1998;	98US-0095282P;
10-AUG-1998;	98US-0095598P;
10-AUG-1998;	98US-0096012P;
17-AUG-1998;	98US-0096577P;
17-AUG-1998;	98US-0096766P;
17-AUG-1998;	98US-0096867P;
17-AUG-1998;	98US-0096891P;
17-AUG-1998;	98US-0096997P;
18-AUG-1998;	98US-0096849P;
18-AUG-1998;	98US-0096959P;
18-AUG-1998;	98US-0097022P;
26-AUG-1998;	98US-0097552P;
26-AUG-1998;	98US-0097954P;
26-AUG-1998;	98US-0097955P;
26-AUG-1998;	98US-0097971P;
26-AUG-1998;	98US-0097974P;
26-AUG-1998;	98US-0098014P;
26-AUG-1998;	98US-0098176P;
01-SEP-1998;	98US-0098723P;
01-SEP-1998;	98US-0098803P;
02-SEP-1998;	98US-0098821P;
02-SEP-1998;	98US-0098843P;
03-SEP-1998;	98US-0098902P;
10-SEP-1998;	98US-0099741P;
10-SEP-1998;	98US-0099754P;
10-SEP-1998;	98US-0099763P;
10-SEP-1998;	98US-0099812P;
15-SEP-1998;	98US-0100388P;
15-SEP-1998;	98US-0100662P;
16-SEP-1998;	98US-0100664P;
16-SEP-1998;	98US-0101751P;
16-SEP-1998;	98WG-005019330;
23-SEP-1998;	98US-0100683P;
23-SEP-1998;	98US-0100684P;
23-SEP-1998;	98US-0100919P;
23-SEP-1998;	98US-0100930P;
23-SEP-1998;	98US-0101472P;
23-SEP-1998;	98US-0101477P;
24-SEP-1998;	98US-0101738P;
24-SEP-1998;	98US-0101739P;
24-SEP-1998;	98US-0101743P;
24-SEP-1998;	98US-0101922P;
25-SEP-1998;	98US-0101786P;
29-SEP-1998;	98US-0102207P;
29-SEP-1998;	98US-0102204P;
29-SEP-1998;	98US-0102330P;
29-SEP-1998;	98US-0102331P;
30-SEP-1998;	98US-0102487P;
30-SEP-1998;	98US-0102571P;
30-SEP-1998;	98US-0102570P;
01-OCT-1998;	98US-0102684P;
01-OCT-1998;	98US-0102687P;



PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090423P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090675P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 03-SEP-1998; 98US-0098843P.  
PR 03-SEP-1998; 98US-0098602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98US-01019330.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.

PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 29-SEP-1998; 98US-0102077P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 29-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102684P.  
PR 01-OCT-1998; 98US-0102687P.  
PR 02-OCT-1998; 98US-0102965P.  
PR 08-OCT-1998; 98US-0103258P.  
PR 08-OCT-1998; 98US-0103449P.  
  
Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 MEGESTSAVLGFGVIGALAFQHLNTSDTEGFLGEGVKEAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGFGVIGALAFQHLNTSDTEGFLGEGVKEAKNSITDSQMDVVEVYITD 60  
  
Qy 61 IQKYPICYQLFSPYNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120  
Db 61 IQKYPICYQLFSPYNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120  
  
Qy 121 LOEHFNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHEVPLVANLGMSEOLGYK 180  
Db 121 LOEHFNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHEVPLVANLGMSEOLGYK 180  
  
Qy 181 TVSGSCMSTGFSRAVQTHSKFEEEDGSLKEVHKINEMVYASLQEEELKSIKCKYVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSKFEEEDGSLKEVHKINEMVYASLQEEELKSIKCKYVEDSEQAV 240  
  
Qy 241 DKLVDVNLKREIEKRGAGIQAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
Db 241 DKLVDVNLKREIEKRGAGIQAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
  
Qy 301 LKRNHVSKSCNHNHLDVVNDLTLVVEHTDIPASPASTPQIIKHKALDLDLDRWQFKS 360  
Db 301 LKRNHVSKSCNHNHLDVVNDLTLVVEHTDIPASPASTPQIIKHKALDLDLDRWQFKS 360  
  
Qy 361 RLLDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGKGFGEYSRSPTF 409  
Db 361 RLLDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGKGFGEYSRSPTF 409  
  
RESULT 57  
ABO13732  
ID ABO13732 standard; protein; 409 AA.  
AC ABO13732;  
XX ABO13732;  
XX 28-AUG-2003 (first entry)  
DE Human secreted/transmembrane protein (PRO) #67.  
XX Human; secreted and transmembrane protein; PRO; TNF-alpha;  
KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;  
KW tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;  
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.  
XX Homo sapiens.  
XX US200304916-A1.  
XX 06-MAR-2003.  
XX 20-JUN-2002; 2002US-00176484.  
XX

PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 28-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083455P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084840P.  
PR 07-MAY-1998; 98US-0084843P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.





CC and cancer. They can also be used to generate transgenic or knockout  
CC animals useful in the development and screening of therapeutically useful  
CC reagents. The PRO polypeptides and encoding nucleic acids can be used as  
CC molecular weight markers for protein electrophoresis, chromosome  
CC identification and tissue typing. The PRO polypeptides are useful to  
CC induce angiogenesis e.g wound healing; in the treatment of sports-related  
CC joint problems, articular cartilage defects, osteoarthritis or rheumatoid  
CC arthritis; diabetes; hyperinsulinaemia and hypoinulinaemia. The  
CC antibodies may be used in various diagnostic, competitive binding and/or  
CC immunoprecipitation assays. The present sequence represents the amino  
CC acid sequence of a PRO polypeptide of the invention  
XX  
XX  
SQ Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MEGESTSAVLSCFVLGALAFQHLNLTDSDETEGFLGVEKGEAKNSITDSQDDVEVVTID 60  
DB 1 MEGESTSAVLSCFVLGALAFQHLNLTDSDETEGFLGVEKGEAKNSITDSQDDVEVVTID 60  
QY 61 IQKIYPCQLFQFYNSSGEVNEQALKKILSNVKNVGVGKFRHSQDQIMTFRERLLHKN 120  
DB 61 IQKIYPCQLFQFYNSSGEVNEQALKKILSNVKNVGVGKFRHSQDQIMTFRERLLHKN 120  
QY 121 LQEHFNSQDLVFLLTPTSIITESCSTHRLSHLYKPKQGLFHRVPLVNVANLGMSEQLGYK 180  
DB 121 LQEHFNSQDLVFLLTPTSIITESCSTHRLSHLYKPKQGLFHRVPLVNVANLGMSEQLGYK 180  
QY 181 TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINENYASLOBELKSICKKVEDSQAV 240  
DB 181 TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINENYASLOBELKSICKKVEDSQAV 240  
QY 241 DKLVKDVNLRKKEIEKRGAQIQARAKNIQKDPQENIFLQALRTFPNSEFLHSCVMS 300  
DB 241 DKLVKDVNLRKKEIEKRGAQIQARAKNIQKDPQENIFLQALRTFPNSEFLHSCVMS 300  
QY 301 LKNRVKSSSCNHNHLDVVDNLTLMVHTDIPASPASTPQIIKHKALDLDLRWQFKRS 360  
DB 301 LKNRVKSSSCNHNHLDVVDNLTLMVHTDIPASPASTPQIIKHKALDLDLRWQFKRS 360  
QY 361 RLDDTQDKRSKANTGSSNQDKASKNSPETDEETKMGFGCEYSRSTPF 409  
DB 361 RLDDTQDKRSKANTGSSNQDKASKNSPETDEETKMGFGCEYSRSTPF 409

## RESULT 59

ID ABU65635  
XX ABU65635 standard; protein; 409 AA.

AC ABU65635;

XX 19-MAY-2003 (first entry)

DE Human secreted/transmembrane protein, SEQ ID 134.

KW Human; PRO; secreted protein; transmembrane protein; cytostatic;  
KW antiarthritic; osteopathic; adrenal tumour; lung tumour; colon tumour;  
KW breast tumour; prostate tumour; rectal tumour; cervical tumour;  
KW liver tumour; TNF-alpha release; arthritis; tumour necrosis factor alpha;  
KW chondrocyte cell; bone disorder; cartilage disorder; sports injury.

OS Homo sapiens.

XX US2003036156-A1.

XX 20-FEB-2003.

XX 02-JUL-2002; 2002US-00188767.

XX 18-SEP-1997; 97US-0059263P.

PR 18-SEP-1997; 97US-0059266P.

PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063420P.  
PR 28-OCT-1997; 97US-0063421P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 29-OCT-1997; 97US-0063564P.  
PR 31-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078866P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086466P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.

[illegible]

XX Human; PRO; secreted polypeptide; transmembrane polypeptide; cytostatic;  
KW tumour necrosis factor-alpha; TNF-alpha; blood; tumour; chondrocyte cell;  
KW cancer.

XX Homo sapiens.

XX US2003032117-A1.

XX 13-FEB-2003.

XX 24-JUN-2002; 2002US-00179510.

XX 18-SEP-1997; 97US-0059263P.

XX 18-SEP-1997; 97US-0059266P.

XX 17-OCT-1997; 97US-0062250P.

XX 21-OCT-1997; 97US-0063486P.

XX 24-OCT-1997; 97US-0063120P.

XX 24-OCT-1997; 97US-0063121P.

XX 28-OCT-1997; 97US-0063540P.

XX 28-OCT-1997; 97US-0063541P.

XX 28-OCT-1997; 97US-0063544P.

XX 28-OCT-1997; 97US-0063564P.

XX 29-OCT-1997; 97US-0063734P.

XX 31-OCT-1997; 97US-0063870P.

XX 31-OCT-1997; 97US-0064103P.

XX 13-NOV-1997; 97US-0065311P.

XX 21-NOV-1997; 97US-0066120P.

XX 24-NOV-1997; 97US-0066466P.

XX 24-NOV-1997; 97US-0066772P.

XX 11-DEC-1997; 97US-0069335P.

XX 12-DEC-1997; 97US-0069425P.

XX 17-DEC-1997; 97US-0069870P.

XX 18-DEC-1997; 97US-0068017P.

XX 10-MAR-1998; 98US-0077450P.

XX 11-MAR-1998; 98US-0077632P.

XX 11-MAR-1998; 98US-0077649P.

XX 20-MAR-1998; 98US-0078886P.

XX 20-MAR-1998; 98US-0078939P.

XX 27-MAR-1998; 98US-0079664P.

XX 27-MAR-1998; 98US-0079786P.

XX 31-MAR-1998; 98US-0080107P.

XX 31-MAR-1998; 98US-0080194P.

XX 01-APR-1998; 98US-0080327P.

XX 01-APR-1998; 98US-0080333P.

XX 08-APR-1998; 98US-0081049P.

XX 09-APR-1998; 98US-0081195P.

XX 15-APR-1998; 98US-0081838P.

XX 21-APR-1998; 98US-0082568P.

XX 21-APR-1998; 98US-0082569P.

XX 22-APR-1998; 98US-0082704P.

XX 22-APR-1998; 98US-0082797P.

XX 28-APR-1998; 98US-0083322P.

XX 29-APR-1998; 98US-0083495P.

XX 29-APR-1998; 98US-0083496P.

XX 29-APR-1998; 98US-0083499P.

XX 29-APR-1998; 98US-0083559P.

XX 05-MAY-1998; 98US-0084366P.

XX 06-MAY-1998; 98US-0084414P.

XX 07-MAY-1998; 98US-0084639P.

XX 07-MAY-1998; 98US-0084640P.

XX 07-MAY-1998; 98US-0084643P.

XX 15-MAY-1998; 98US-0085579P.

XX 15-MAY-1998; 98US-0085580P.

XX 15-MAY-1998; 98US-0085582P.

XX 15-MAY-1998; 98US-0085700P.

XX 18-MAY-1998; 98US-0086023P.

XX 22-MAY-1998; 98US-0086392P.

XX 22-MAY-1998; 98US-0086486P.

XX 28-MAY-1998; 98US-0087098P.

XX 28-MAY-1998; 98US-0087208P.

XX 02-JUN-1998; 98US-0087609P.

PR 02-JUN-1998; 98US-0087759P.

PR 03-JUN-1998; 98US-0087827P.

PR 04-JUN-1998; 98US-0088025P.

PR 04-JUN-1998; 98US-0088028P.

PR 04-JUN-1998; 98US-0088029P.

PR 04-JUN-1998; 98US-0088033P.

PR 04-JUN-1998; 98US-0088326P.

PR 05-JUN-1998; 98US-0088167P.

PR 05-JUN-1998; 98US-0088202P.

PR 05-JUN-1998; 98US-0088212P.

PR 05-JUN-1998; 98US-0088217P.

PR 05-JUN-1998; 98US-0088655P.

PR 10-JUN-1998; 98US-0088722P.

PR 10-JUN-1998; 98US-0088738P.

PR 10-JUN-1998; 98US-0088740P.

PR 10-JUN-1998; 98US-0088811P.

PR 10-JUN-1998; 98US-0088824P.

PR 10-JUN-1998; 98US-0088825P.

PR 10-JUN-1998; 98US-0088826P.

PR 11-JUN-1998; 98US-0088861P.

PR 11-JUN-1998; 98US-0088863P.

PR 11-JUN-1998; 98US-0088876P.

PR 12-JUN-1998; 98US-0089090P.

PR 12-JUN-1998; 98US-0089105P.

PR 16-JUN-1998; 98US-0089512P.

PR 16-JUN-1998; 98US-0089514P.

PR 17-JUN-1998; 98US-0089538P.

PR 17-JUN-1998; 98US-0089598P.

PR 17-JUN-1998; 98US-0089653P.

PR 18-JUN-1998; 98US-0089908P.

PR 19-JUN-1998; 98US-0089952P.

PR 22-JUN-1998; 98US-0090246P.

PR 22-JUN-1998; 98US-0090252P.

PR 22-JUN-1998; 98US-0090254P.

PR 24-JUN-1998; 98US-0090429P.

PR 24-JUN-1998; 98US-0090435P.

PR 24-JUN-1998; 98US-0090444P.

PR 24-JUN-1998; 98US-0090461P.

PR 24-JUN-1998; 98US-0090535P.

PR 24-JUN-1998; 98US-0090540P.

PR 25-JUN-1998; 98US-0090676P.

PR 25-JUN-1998; 98US-0090678P.

PR 25-JUN-1998; 98US-0090688P.

PR 25-JUN-1998; 98US-0090690P.

PR 25-JUN-1998; 98US-0090694P.

PR 25-JUN-1998; 98US-0090695P.

PR 25-JUN-1998; 98US-0090696P.

PR 26-JUN-1998; 98US-00105413.

PR 26-JUN-1998; 98US-0090862P.

PR 26-JUN-1998; 98US-0090863P.

PR 26-JUN-1998; 98US-0091010P.

PR 01-JUL-1998; 98US-0091359P.

PR 01-JUL-1998; 98US-0091544P.

PR 02-JUL-1998; 98US-0091478P.

PR 02-JUL-1998; 98US-0091486P.

PR 02-JUL-1998; 98US-0091626P.

PR 02-JUL-1998; 98US-0091628P.

PR 02-JUL-1998; 98US-0091632P.

PR 24-JUL-1998; 98US-0094006P.

PR 04-AUG-1998; 98US-0095282P.

PR 10-AUG-1998; 98US-0095998P.

PR 10-AUG-1998; 98US-0096012P.

PR 17-AUG-1998; 98US-0096757P.

PR 17-AUG-1998; 98US-0096766P.

PR 17-AUG-1998; 98US-0096867P.

PR 17-AUG-1998; 98US-0096881P.

PR 17-AUG-1998; 98US-0096897P.

PR 18-AUG-1998; 98US-0096949P.

PR 18-AUG-1998; 98US-0096959P.

PR 18-AUG-1998; 98US-0097022P.

PR 26-AUG-1998; 98US-0097952P.

PR 26-AUG-1998; 98US-0097954P.

PR 26-AUG-1998; 98US-0097955P.

PR	26-AUG-1998;	98US-0097971P.	Query Match	100.0%;	Score 409;	DB 6;	Length 409;
PR	26-AUG-1998;	98US-0097974P.	Best Local Similarity	100.0%;	Pred. No. 0;		
PR	26-AUG-1998;	98US-0098014P.	Matches 409;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
PR	01-SEP-1998;	98US-0098716P.	1	MEGESTSAVLGSGFVLGALAFQHLNTSDTEGFLGGEVKGAKNSITDSQMDVVEVYIID	60		
PR	01-SEP-1998;	98US-0098723P.	1	MEGESTSAVLGSGFVLGALAFQHLNTSDTEGFLGGEVKGAKNSITDSQMDVVEVYIID	60		
PR	02-SEP-1998;	98US-0098803P.	61	IQYIPCYQLPSFNSGGEVNEQAKKILSNVKNVGVGWYKFRHSDQIMTFRERILLHN	120		
PR	02-SEP-1998;	98US-0098821P.	61	IQYIPCYQLPSFNSGGEVNEQAKKILSNVKNVGVGWYKFRHSDQIMTFRERILLHN	120		
PR	09-SEP-1998;	98US-0098843P.	121	LOEHFSNQDLVFLLLTPTSIITSCSTHRLSHLYKPKGLFHRVPLVWNLGWSQLGYK	180		
PR	10-SEP-1998;	98US-0099602P.	121	LOEHFSNQDLVFLLLTPTSIITSCSTHRLSHLYKPKGLFHRVPLVWNLGWSQLGYK	180		
PR	10-SEP-1998;	98US-0099741P.	191	TVSGSCSTGFSRAVQTHSKFEEGSLKEVHKINEMVASYLOEELKSTCKKVDESEQAV	240		
PR	10-SEP-1998;	98US-0099754P.	181	TVSGSCSTGFSRAVQTHSKFEEGSLKEVHKINEMVASYLOEELKSTCKKVDESEQAV	240		
PR	10-SEP-1998;	98US-0099763P.	241	DKLVKDVNRLKREIKERGAQIOAAREKNTQKDPQENIFLCOALRTFFNFSEFLHSCVMS	300		
PR	15-SEP-1998;	98US-0099812P.	241	DKLVKDVNRLKREIKERGAQIOAAREKNTQKDPQENIFLCOALRTFFNFSEFLHSCVMS	300		
PR	16-SEP-1998;	98US-0100388P.	301	LKNRHVSKSCNHNHLDVVDNLTLMVEHTDIPEASPASTPQIIKHKALDLDLRWQFKES	360		
PR	16-SEP-1998;	98US-0100642P.					
PR	16-SEP-1998;	98US-0101751P.					
PR	16-SEP-1998;	98US-0101751P.					
PR	17-SEP-1998;	98US-0100683P.					
PR	17-SEP-1998;	98US-0100684P.					
PR	17-SEP-1998;	98US-0100919P.					
PR	17-SEP-1998;	98US-0100930P.					
PR	18-SEP-1998;	98US-0100849P.					
PR	18-SEP-1998;	98US-0101044P.					
PR	18-SEP-1998;	98US-0101068P.					
PR	23-SEP-1998;	98US-0101471P.					
PR	23-SEP-1998;	98US-0101472P.					
PR	23-SEP-1998;	98US-0101475P.					
PR	23-SEP-1998;	98US-0101477P.					
PR	24-SEP-1998;	98US-0101738P.					
PR	24-SEP-1998;	98US-0101739P.					
PR	24-SEP-1998;	98US-0101743P.					
PR	24-SEP-1998;	98US-0101922P.					
PR	25-SEP-1998;	98US-0101786P.					
PR	29-SEP-1998;	98US-0102207P.					
PR	29-SEP-1998;	98US-0102240P.					
PR	29-SEP-1998;	98US-0102330P.					
PR	29-SEP-1998;	98US-0102331P.					
PR	30-SEP-1998;	98US-0102487P.					
PR	30-SEP-1998;	98US-0102570P.					
PR	30-SEP-1998;	98US-0102571P.					
PR	01-OCT-1998;	98US-0102684P.					
PR	01-OCT-1998;	98US-0102687P.					
PR	02-OCT-1998;	98US-0102965P.					
PR	06-OCT-1998;	98US-0103258P.					
PR	06-OCT-1998;	98US-0103449P.					
PR	07-OCT-1998;	98US-00168978.					

Db	301	LKNRHVSKSCNHNHLDVVDNLTLMVEHTDIPEASPASTPQIIKHKALDLDLRWQFKES	360
Qy	361	RLDLDQDKRSKANTGSSNQDKASKMSSPETDEIEKWKGFGEYSRPTF	409
Db	361	RLDLDQDKRSKANTGSSNQDKASKMSSPETDEIEKWKGFGEYSRPTF	409
RESULT 61			
ABO03670			
ID	ABO03670 standard; protein; 409 AA.		
XX	AC	ABO03670;	
XX	XX	10-AUG-2003 (first entry)	
DE	XX	Human secreted/transmembrane protein (PRO) #67.	
KW	Human; secreted and transmembrane protein; PRO; TNF-alpha;		
KW	tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;		
KW	tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;		
XX	prostate tumour; rectal tumour; cervical tumour; liver tumour.		
OS	Homo sapiens.		
FN	US2003036128-A1.		
XX	20-FEB-2003.		
XX	27-JUN-2002; 2002US-00184616.		
PR	18-SEP-1997;	97US-0059263P.	
PR	18-SEP-1997;	97US-0059266P.	
PR	17-OCT-1997;	97US-0062250P.	
PR	21-OCT-1997;	97US-0063486P.	
PR	24-OCT-1997;	97US-0063120P.	
PR	24-OCT-1997;	97US-0063121P.	
PR	28-OCT-1997;	97US-0063540P.	
PR	28-OCT-1997;	97US-0063541P.	
PR	28-OCT-1997;	97US-0063544P.	
PR	28-OCT-1997;	97US-0063546P.	
PR	29-OCT-1997;	97US-0063734P.	
PR	31-OCT-1997;	97US-0063870P.	
PR	31-OCT-1997;	97US-0064103P.	
PR	13-NOV-1997;	97US-0065311P.	
PR	21-NOV-1997;	97US-0066120P.	
PR	24-NOV-1997;	97US-0066466P.	
PR	24-NOV-1997;	97US-0066772P.	
PR	11-DEC-1997;	97US-0069335P.	
PR	12-DEC-1997;	97US-0069425P.	
PR	17-DEC-1997;	97US-0069870P.	
PR	18-DEC-1997;	97US-0068017P.	
PR	10-MAR-1998;	98US-0077450P.	
PR	11-MAR-1998;	98US-0077632P.	
PR	11-MAR-1998;	98US-0077649P.	
PR	20-MAR-1998;	98US-0078866P.	
PR	20-MAR-1998;	98US-0078939P.	
PR	27-MAR-1998;	98US-0079664P.	
PR	27-MAR-1998;	98US-0079786P.	
PR	31-MAR-1998;	98US-0080107P.	
PR	31-MAR-1998;	98US-0080194P.	
PR	01-APR-1998;	98US-0080327P.	
PR	01-APR-1998;	98US-0080333P.	
PR	08-APR-1998;	98US-0081049P.	
PR	08-APR-1998;	98US-0081070P.	
PR	09-APR-1998;	98US-0081195P.	
PR	15-APR-1998;	98US-0081838P.	
PR	21-APR-1998;	98US-0082568P.	
PR	21-APR-1998;	98US-0082569P.	
PR	22-APR-1998;	98US-0082704P.	
PR	22-APR-1998;	98US-0082797P.	
PR	28-APR-1998;	98US-0083122P.	
PR	29-APR-1998;	98US-0083495P.	

PR	29-APR-1998;	98US-0083496P.	PR	02-JUL-1998;	98US-0091626P.
PR	29-APR-1998;	98US-0083499P.	PR	02-JUL-1998;	98US-0091628P.
PR	29-APR-1998;	98US-0083555P.	PR	02-JUL-1998;	98US-0091632P.
PR	05-MAY-1998;	98US-0084366P.	PR	24-JUL-1998;	98US-0094006P.
PR	06-MAY-1998;	98US-0084414P.	PR	04-AUG-1998;	98US-0095282P.
PR	07-MAY-1998;	98US-0084633P.	PR	10-AUG-1998;	98US-0095598P.
PR	07-MAY-1998;	98US-0084640P.	PR	10-AUG-1998;	98US-0096012P.
PR	07-MAY-1998;	98US-0084643P.	PR	17-AUG-1998;	98US-0096757P.
PR	15-MAY-1998;	98US-0085579P.	PR	17-AUG-1998;	98US-0096766P.
PR	15-MAY-1998;	98US-0085580P.	PR	17-AUG-1998;	98US-0096867P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096891P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096897P.
PR	15-MAY-1998;	98US-0085700P.	PR	18-AUG-1998;	98US-0096949P.
PR	18-MAY-1998;	98US-0086023P.	PR	18-AUG-1998;	98US-0096959P.
PR	22-MAY-1998;	98US-0086392P.	PR	18-AUG-1998;	98US-0097022P.
PR	22-MAY-1998;	98US-0086486P.	PR	26-AUG-1998;	98US-0097952P.
PR	28-MAY-1998;	98US-0087098P.	PR	26-AUG-1998;	98US-0097954P.
PR	28-MAY-1998;	98US-0087208P.	PR	26-AUG-1998;	98US-0097955P.
PR	02-JUN-1998;	98US-0087603P.	PR	26-AUG-1998;	98US-0097971P.
PR	02-JUN-1998;	98US-0087753P.	PR	26-AUG-1998;	98US-0097974P.
PR	03-JUN-1998;	98US-0087827P.	PR	26-AUG-1998;	98US-0098014P.
PR	04-JUN-1998;	98US-0088025P.	PR	26-AUG-1998;	98US-0098716P.
PR	04-JUN-1998;	98US-0088028P.	PR	01-SEP-1998;	98US-0098723P.
PR	04-JUN-1998;	98US-0088029P.	PR	01-SEP-1998;	98US-0098803P.
PR	04-JUN-1998;	98US-0088033P.	PR	02-SEP-1998;	98US-0098821P.
PR	04-JUN-1998;	98US-0088325P.	PR	02-SEP-1998;	98US-0098843P.
PR	05-JUN-1998;	98US-0088167P.	PR	03-SEP-1998;	98US-0099602P.
PR	05-JUN-1998;	98US-0088202P.	PR	10-SEP-1998;	98US-0099741P.
PR	05-JUN-1998;	98US-0088212P.	PR	10-SEP-1998;	98US-0099754P.
PR	09-JUN-1998;	98US-0088217P.	PR	10-SEP-1998;	98US-0099763P.
PR	10-JUN-1998;	98US-0088722P.	PR	10-SEP-1998;	98US-0099812P.
PR	10-JUN-1998;	98US-0088733P.	PR	15-SEP-1998;	98US-0100388P.
PR	10-JUN-1998;	98US-0088740P.	PR	15-SEP-1998;	98US-0100662P.
PR	10-JUN-1998;	98US-0088811P.	PR	15-SEP-1998;	98US-0100664P.
PR	10-JUN-1998;	98US-0088824P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088825P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088826P.	PR	17-SEP-1998;	98US-0100683P.
PR	11-JUN-1998;	98US-0088861P.	PR	17-SEP-1998;	98US-0100684P.
PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100919P.
PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100930P.
PR	12-JUN-1998;	98US-0089090P.	PR	18-SEP-1998;	98US-0100849P.
PR	12-JUN-1998;	98US-0089105P.	PR	18-SEP-1998;	98US-0101014P.
PR	16-JUN-1998;	98US-0089512P.	PR	18-SEP-1998;	98US-0101068P.
PR	16-JUN-1998;	98US-0089514P.	PR	23-SEP-1998;	98US-0101471P.
PR	17-JUN-1998;	98US-0089538P.	PR	23-SEP-1998;	98US-0101472P.
PR	17-JUN-1998;	98US-0089598P.	PR	23-SEP-1998;	98US-0101475P.
PR	17-JUN-1998;	98US-0089653P.	PR	23-SEP-1998;	98US-0101477P.
PR	18-JUN-1998;	98US-0089908P.	PR	24-SEP-1998;	98US-0101738P.
PR	19-JUN-1998;	98US-0089952P.	PR	24-SEP-1998;	98US-0101739P.
PR	22-JUN-1998;	98US-0090246P.	PR	24-SEP-1998;	98US-0101743P.
PR	22-JUN-1998;	98US-0090252P.	PR	25-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090254P.	PR	25-SEP-1998;	98US-0101786P.
PR	24-JUN-1998;	98US-0090429P.	PR	29-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090435P.	PR	29-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090444P.	PR	29-SEP-1998;	98US-0102330P.
PR	24-JUN-1998;	98US-0090461P.	PR	29-SEP-1998;	98US-0102331P.
PR	24-JUN-1998;	98US-0090535P.	PR	30-SEP-1998;	98US-0102487P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102570P.
PR	25-JUN-1998;	98US-0090676P.	PR	30-SEP-1998;	98US-0102571P.
PR	25-JUN-1998;	98US-0090678P.	PR	01-OCT-1998;	98US-0102684P.
PR	25-JUN-1998;	98US-0090688P.	PR	01-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090690P.	PR	02-OCT-1998;	98US-0102655P.
PR	25-JUN-1998;	98US-0090694P.	PR	06-OCT-1998;	98US-0103258P.
PR	25-JUN-1998;	98US-0090695P.	PR	06-OCT-1998;	98US-0103449P.
PR	25-JUN-1998;	98US-0090696P.			
PR	26-JUN-1998;	98US-00105413			
PR	26-JUN-1998;	98US-0090862P.			
PR	26-JUN-1998;	98US-0090863P.			
PR	26-JUN-1998;	98US-0091010P.			
PR	01-JUL-1998;	98US-0091359P.			
PR	01-JUL-1998;	98US-0091544P.			
PR	02-JUL-1998;	98US-0091478P.			
PR	02-JUL-1998;	98US-0091486P.			

Query Match 100.0%; Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTEGFLGGEVKGAKNSITDSQMDDEVVYITD 60

Db 1 MEGESTSAVLGSGFVLGALAFQHLNTSDTEGFLGGEVKGAKNSITDSQMDDEVVYITD 60

QY	61	IQKIPYQVLFSSFYNSGSEVNEQALKILSNVKNVGVGWYKFRHSDQIMTFRELLHKV	120
Db	61	IQKIPYQVLFSSFYNSGSEVNEQALKILSNVKNVGVGWYKFRHSDQIMTFRELLHKV	120
QY	121	LOEHFSNODLVFLLLTSIIITESCSTRLEHSLYKPKGLFHRVPLVANLGMSEQLGYK	180
Db	121	LOEHFSNODLVFLLLTSIIITESCSTRLEHSLYKPKGLFHRVPLVANLGMSEQLGYK	180
QY	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLQBELKSI CKKVEDSEQAV	240
Db	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLQBELKSI CKKVEDSEQAV	240
QY	241	DKLVKDVNRLKRETEKRGAGIOAAREKNIOKQDPENIFICOALRTFFPNSEFLHSCVMS	300
Db	241	DKLVKDVNRLKRETEKRGAGIOAAREKNIOKQDPENIFICOALRTFFPNSEFLHSCVMS	300
QY	301	LKNEHVSKSSCNVNHLDVVDNLTLVMEHTDIPASASTPQIIKHKALDLDORWQPKRS	360
Db	301	LKNEHVSKSSCNVNHLDVVDNLTLVMEHTDIPASASTPQIIKHKALDLDORWQPKRS	360
QY	361	RLLTQDKRSKANTGSSNQDKASKMSSPETDEETKMKGGEYSRSTPF	409
Db	361	RLLTQDKRSKANTGSSNQDKASKMSSPETDEETKMKGGEYSRSTPF	409
RESULT 62			
ABR67118			
ID	ABR67118 standard; protein; 409 AA.		
AC	ABR67118;		
XX			
XX	05-AUG-2003 (first entry)		
XX	Human secreted polypeptide PRO1013, SEQ ID NO:134.		
DE	Human; PRO; secreted protein; transmembrane protein; extracellular domain; tumour necrosis factor-alpha; TNF-alpha;		
KW	chondrocyte; proliferation; differentiation; cartilage disorder;		
KW	bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;		
KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;		
KW	liver; drug screening; transgenic animal; genetic analysis;		
KW	antiarthritic; vulnery; gene therapy.		
XX			
OS	Homo sapiens.		
XX			
PN	US2003027266-A1.		
XX			
PD	06-FEB-2003.		
XX			
PF	18-JUN-2002; 2002US-00174588.		
XX			
PR	18-SEP-1997;	97US-0059263P.	
PR	18-SEP-1997;	97US-0059266P.	
PR	17-OCT-1997;	97US-0062250P.	
PR	21-OCT-1997;	97US-0063486P.	
PR	24-OCT-1997;	97US-0063120P.	
PR	24-OCT-1997;	97US-0063121P.	
PR	28-OCT-1997;	97US-0063540P.	
PR	28-OCT-1997;	97US-0063541P.	
PR	28-OCT-1997;	97US-0063544P.	
PR	28-OCT-1997;	97US-0063564P.	
PR	29-OCT-1997;	97US-0063734P.	
PR	31-OCT-1997;	97US-0063870P.	
PR	31-OCT-1997;	97US-0064103P.	
PR	13-NOV-1997;	97US-0065311P.	
PR	21-NOV-1997;	97US-0066120P.	
PR	24-NOV-1997;	97US-0066466P.	
PR	24-NOV-1997;	97US-0066772P.	
PR	11-DEC-1997;	97US-0069335P.	
PR	12-DEC-1997;	97US-0069425P.	
PR	17-DEC-1997;	97US-0069670P.	
PR	18-DEC-1997;	97US-0068017P.	
PR	10-MAR-1996;	98US-0077450P.	

PR	11-MAR-1998;	98US-0077632P.	
PR	11-MAR-1998;	98US-0077649P.	
PR	20-MAR-1998;	98US-0078866P.	
PR	20-MAR-1998;	98US-0078939P.	
PR	27-MAR-1998;	98US-0079664P.	
PR	27-MAR-1998;	98US-0079786P.	
PR	31-MAR-1998;	98US-0080107P.	
PR	31-MAR-1998;	98US-0080194P.	
PR	01-APR-1998;	98US-0080327P.	
PR	01-APR-1998;	98US-0080333P.	
PR	08-APR-1998;	98US-0081049P.	
PR	08-APR-1998;	98US-0081070P.	
PR	09-APR-1998;	98US-0081195P.	
PR	15-APR-1998;	98US-0081838P.	
PR	15-APR-1998;	98US-0082568P.	
PR	21-APR-1998;	98US-0082569P.	
PR	22-APR-1998;	98US-0082704P.	
PR	22-APR-1998;	98US-0082797P.	
PR	28-APR-1998;	98US-0083322P.	
PR	29-APR-1998;	98US-0083495P.	
PR	29-APR-1998;	98US-0083496P.	
PR	29-APR-1998;	98US-0083499P.	
PR	29-APR-1998;	98US-0083559P.	
PR	05-MAY-1998;	98US-0084366P.	
PR	06-MAY-1998;	98US-0084414P.	
PR	07-MAY-1998;	98US-0084639P.	
PR	07-MAY-1998;	98US-0084640P.	
PR	15-MAY-1998;	98US-0084643P.	
PR	15-MAY-1998;	98US-0085579P.	
PR	15-MAY-1998;	98US-0085580P.	
PR	15-MAY-1998;	98US-0085582P.	
PR	18-MAY-1998;	98US-0085700P.	
PR	22-MAY-1998;	98US-0086023P.	
PR	22-MAY-1998;	98US-0086392P.	
PR	22-MAY-1998;	98US-0086486P.	
PR	28-MAY-1998;	98US-0087098P.	
PR	28-MAY-1998;	98US-0087208P.	
PR	02-JUN-1998;	98US-0087609P.	
PR	02-JUN-1998;	98US-008759P.	
PR	03-JUN-1998;	98US-0087827P.	
PR	04-JUN-1998;	98US-0088025P.	
PR	04-JUN-1998;	98US-0088028P.	
PR	04-JUN-1998;	98US-0088029P.	
PR	04-JUN-1998;	98US-0088033P.	
PR	04-JUN-1998;	98US-0088326P.	
PR	05-JUN-1998;	98US-0088167P.	
PR	05-JUN-1998;	98US-0088202P.	
PR	05-JUN-1998;	98US-0088212P.	
PR	05-JUN-1998;	98US-0088217P.	
PR	03-JUN-1998;	98US-0088555P.	
PR	10-JUN-1998;	98US-0088722P.	
PR	10-JUN-1998;	98US-0088738P.	
PR	10-JUN-1998;	98US-0088740P.	
PR	10-JUN-1998;	98US-0088811P.	
PR	10-JUN-1998;	98US-0088824P.	
PR	10-JUN-1998;	98US-0088825P.	
PR	10-JUN-1998;	98US-0088826P.	
PR	11-JUN-1998;	98US-0088861P.	
PR	11-JUN-1998;	98US-0088863P.	
PR	11-JUN-1998;	98US-0088876P.	
PR	12-JUN-1998;	98US-0089090P.	
PR	12-JUN-1998;	98US-0089105P.	
PR	12-JUN-1998;	98US-0089512P.	
PR	15-JUN-1998;	98US-0089514P.	
PR	15-JUN-1998;	98US-0089538P.	
PR	17-JUN-1998;	98US-0089598P.	
PR	17-JUN-1998;	98US-0089653P.	
PR	18-JUN-1998;	98US-0089908P.	
PR	19-JUN-1998;	98US-0089952P.	
PR	22-JUN-1998;	98US-0090246P.	
PR	22-JUN-1998;	98US-0090252P.	
PR	22-JUN-1998;	98US-0090254P.	
PR	24-JUN-1998;	98US-0090429P.	

PR 24-JUN-1998;	98US-0090435P.
PR 24-JUN-1998;	98US-0090444P.
PR 24-JUN-1998;	98US-0090461P.
PR 24-JUN-1998;	98US-0090535P.
PR 24-JUN-1998;	98US-0090540P.
PR 25-JUN-1998;	98US-0090676P.
PR 25-JUN-1998;	98US-0090678P.
PR 25-JUN-1998;	98US-0090688P.
PR 25-JUN-1998;	98US-0090690P.
PR 25-JUN-1998;	98US-0090694P.
PR 25-JUN-1998;	98US-0090695P.
PR 25-JUN-1998;	98US-0090696P.
PR 26-JUN-1998;	98US-00105413.
PR 26-JUN-1998;	98US-0090862P.
PR 26-JUN-1998;	98US-0090863P.
PR 26-JUN-1998;	98US-0091010P.
PR 01-JUL-1998;	98US-0091359P.
PR 01-JUL-1998;	98US-0091544P.
PR 02-JUL-1998;	98US-0091478P.
PR 02-JUL-1998;	98US-0091486P.
PR 02-JUL-1998;	98US-0091626P.
PR 02-JUL-1998;	98US-0091628P.
PR 02-JUL-1998;	98US-0091633P.
PR 24-JUL-1998;	98US-0094006P.
PR 04-AUG-1998;	98US-0095282P.
PR 10-AUG-1998;	98US-0095998P.
PR 10-AUG-1998;	98US-0096012P.
PR 17-AUG-1998;	98US-0096757P.
PR 17-AUG-1998;	98US-0096766P.
PR 17-AUG-1998;	98US-0096867P.
PR 17-AUG-1998;	98US-0096891P.
PR 17-AUG-1998;	98US-0096897P.
PR 18-AUG-1998;	98US-0096949P.
PR 18-AUG-1998;	98US-0096959P.
PR 18-AUG-1998;	98US-0097022P.
PR 26-AUG-1998;	98US-0097952P.
PR 26-AUG-1998;	98US-0097954P.
PR 26-AUG-1998;	98US-0097955P.
PR 26-AUG-1998;	98US-0097971P.
PR 26-AUG-1998;	98US-0097974P.
PR 26-AUG-1998;	98US-0098014P.
PR 01-SEP-1998;	98US-0098716P.
PR 01-SEP-1998;	98US-0098723P.
PR 02-SEP-1998;	98US-0098803P.
PR 02-SEP-1998;	98US-0098821P.
PR 02-SEP-1998;	98US-0098843P.
PR 09-SEP-1998;	98US-0099602P.
PR 10-SEP-1998;	98US-0099741P.
PR 10-SEP-1998;	98US-0099754P.
PR 10-SEP-1998;	98US-0099763P.
PR 10-SEP-1998;	98US-0099812P.
PR 15-SEP-1998;	98US-0100388P.
PR 16-SEP-1998;	98US-0100662P.
PR 16-SEP-1998;	98US-0100664P.
PR 16-SEP-1998;	98US-0101751P.
PR 16-SEP-1998;	98WO-US019330.
PR 17-SEP-1998;	98US-0100683P.
PR 17-SEP-1998;	98US-0100684P.
PR 17-SEP-1998;	98US-0100919P.
PR 17-SEP-1998;	98US-0100930P.
PR 18-SEP-1998;	98US-0100849P.
PR 18-SEP-1998;	98US-0101014P.
PR 18-SEP-1998;	98US-0101068P.
PR 23-SEP-1998;	98US-0101471P.
PR 23-SEP-1998;	98US-0101472P.
PR 23-SEP-1998;	98US-0101475P.
PR 23-SEP-1998;	98US-0101477P.
PR 24-SEP-1998;	98US-0101738P.
PR 24-SEP-1998;	98US-0101739P.
PR 24-SEP-1998;	98US-0101743P.
PR 24-SEP-1998;	98US-0101922P.
PR 25-SEP-1998;	98US-0101786P.
PR 29-SEP-1998;	98US-0102207P.
PR 29-SEP-1998;	98US-0102240P.
PR 29-SEP-1998;	98US-0102330P.
PR 29-SEP-1998;	98US-0102331P.
PR 30-SEP-1998;	98US-0102487P.
PR 30-SEP-1998;	98US-0102570P.
PR 30-SEP-1998;	98US-0102571P.
PR 01-OCT-1998;	98US-0102884P.
PR 01-OCT-1998;	98US-0102887P.
Query Match 100.0%; Score 409; DB 6; Length 409;	
Best Local Similarity 100.0%; Pred. No. 0;	
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
Qy 1	MEGESTAVLSGFGVIGALAFQHLNTSDTEGFLGVEKGEAKNSITDSOMDDVVVYITD 60
Db 1	MEGESTAVLSGFGVIGALAFQHLNTSDTEGFLGVEKGEAKNSITDSOMDDVVVYITD 60
Qy 61	IQKYPICYQLFSFYNSSGVEVNEQALKILSNVKVNVGVYKFRHSDQIMTFRERLLHKN 120
Db 61	IQKYPICYQLFSFYNSSGVEVNEQALKILSNVKVNVGVYKFRHSDQIMTFRERLLHKN 120
Qy 121	LOEHFNSQDLVFLLLTPSIITSCSTRHLSLYKPKQGLFHRVPLVWNLGMSQIGYK 180
Db 121	LOEHFNSQDLVFLLLTPSIITSCSTRHLSLYKPKQGLFHRVPLVWNLGMSQIGYK 180
Qy 181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLOEELKSI CKVEDSEQAV 240
Db 181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLOEELKSI CKVEDSEQAV 240
Qy 241	DKLVKQVNLKREIEKRRGAQIOAAREKNIQKDPQENIFLCQALRTFFPNSEFLHSCVMS 300
Db 241	DKLVKQVNLKREIEKRRGAQIOAAREKNIQKDPQENIFLCQALRTFFPNSEFLHSCVMS 300
Qy 301	LKNRHSVKSNCYNHLDVVNDLTLVVEHTDIEASPASTPQIIKHKALDLDORWQFKRS 360
Db 301	LKNRHSVKSNCYNHLDVVNDLTLVVEHTDIEASPASTPQIIKHKALDLDORWQFKRS 360
Qy 361	RLDQTKRSKANTGSSNQDKASKMSSPETDEIEKMGFGEYSRPTF 409
Db 361	RLDQTKRSKANTGSSNQDKASKMSSPETDEIEKMGFGEYSRPTF 409
RESULT 63	
ABO15721	
ID	ABO15721 standard; protein; 409 AA.
XX	AC ABO15721;
XX	DT 27-AUG-2003 (first entry)
XX	DE Human secreted/transmembrane protein (PRO) #67.
XX	KW Human; secreted and transmembrane protein; PRO; TNF-alpha;
XX	KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;
XX	KW tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;
XX	KW prostate tumour; rectal tumour; cervical tumour; liver tumour.
OS	Homo sapiens.
XX	US2003054483-A1.
XX	20-MAR-2003.
XX	26-JUL-2002; 2002US-00205907.
XX	05-JUN-2000; 2000US-0209832P.
XX	28-FEB-2001; 2001WO-US006520.
XX	15-JAN-2002; 2002US-00052586.
XX	(GETH ) GENENTECH INC.
XX	Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;
PI	Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;



XX WPI; 2003-479876/45.  
DR N-PSDB; ACD21235.  
XX Three hundred and five nucleic acids encoding PRO polypeptides, useful  
PT for the manufacture of a medicament for diagnosing or treating tumor or  
PT for measuring or detecting expression of an associated gene.  
XX  
XX Claim 11; Fig 134; 699pp; English.  
XX The invention discloses human nucleic acids encoding secreted and  
CC transmembrane (PRO) polypeptides, with or without their associated signal  
CC peptide. Also disclosed is an antibody that specifically binds to the PRO  
CC polypeptide, a method for stimulating the release of tumor necrosis  
CC factor alpha (TNF-alpha) from human blood by contacting the blood with a  
CC PRO polypeptide, a method for stimulating the proliferation or  
CC differentiation of chondrocyte cells by contacting the cells with a PRO  
CC polypeptide, a method for detecting the presence of a tumor in a mammal  
CC and an oligonucleotide probe derived from any of the PRO nucleotide  
CC sequences. The nucleotide sequences are useful as probes, in chromosome  
CC and gene mapping, in generating antisense RNA and DNA, in preparing PRO  
CC polypeptides by recombinant techniques and in gene therapy (e.g. for  
CC replacement of defective gene). The PRO polypeptides are useful as  
CC molecular weight markers for protein electrophoresis purposes, for  
CC chromosome identification, as chromosome markers, as therapeutic agents,  
CC for stimulating the release of TNF-alpha from human blood, for  
CC stimulating the proliferation or differentiation of chondrocytes and  
CC detecting the presence, prevention and/or treatment of a tumor, such as  
CC adrenal, lung, colon, breast, prostate, rectal, cervical or liver tumour.  
CC The PRO polypeptides and nucleic acids may also be used diagnostically  
CC for tissue typing. The sequence presented is a PRO polypeptide of the  
CC invention. Note: The sequence data for this patent can also be obtained  
CC in electronic format directly from USPTO at  
CC seqdata.uspto.gov/sequence.html  
XX  
XX Sequence 409 AA;  
Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MEGESTSAVLGSGVIGALAFQHLNLTSDTEGFLGVEGKAKNSITDSQMDVVEVYIID 60  
Db 1 MEGESTSAVLGSGVIGALAFQHLNLTSDTEGFLGVEGKAKNSITDSQMDVVEVYIID 60  
QY 61 IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVGVGKFRHSDQIMTFRELLHN 120  
Db 61 IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVGVGKFRHSDQIMTFRELLHN 120  
QY 121 LQEHFNSQDLVFLLLTFSIITSCSTRLEHSLYKPKGLFHRVPLVAVNLGMSQGLGYK 180  
Db 121 LQEHFNSQDLVFLLLTFSIITSCSTRLEHSLYKPKGLFHRVPLVAVNLGMSQGLGYK 180  
QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLQELKSI CKKVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLQELKSI CKKVEDSEQAV 240  
QY 241 DLKLVQVNRKREIKRGAQIOAAREKNITQKPOENIFLQALRTFFPNSEFLHSCVMS 300  
Db 241 DLKLVQVNRKREIKRGAQIOAAREKNITQKPOENIFLQALRTFFPNSEFLHSCVMS 300  
QY 301 LKQHVSKSCNTYNNHLDVVDNLTLMVEHTDIPASPASTPQIIKHKALDLDLDRWQFKS 360  
Db 301 LKQHVSKSCNTYNNHLDVVDNLTLMVEHTDIPASPASTPQIIKHKALDLDLDRWQFKS 360  
QY 361 RLLDTQKRSKANTGSSNQKASKMSGSPETDEIEKMGKGEYSRPTF 409  
Db 361 RLLDTQKRSKANTGSSNQKASKMSGSPETDEIEKMGKGEYSRPTF 409  
RESULT 64  
ABUS6002  
ID ABUS6002 standard; protein; 409 AA.

XX AC ABUS6002;  
XX DT 26-MAR-2003 (first entry)  
XX DE Human secreted/transmembrane protein, PRO1013.  
XX KW Human; secreted protein; transmembrane protein; PRO; antiarthritic;  
KW vulnary; tumor necrosis factor-alpha; chondrocyte cell proliferation;  
KW chondrocyte cell differentiation; tumor; adrenal tumour; lung tumour;  
KW colon tumour; breast tumour; prostate tumour; rectal tumour;  
KW cervical tumour; liver tumour; bone disorder; cartilage disorder;  
KW arthritis; sports injury.  
XX OS Homo sapiens.  
XX PN US2003022298-A1.  
XX PD 30-JAN-2003.  
XX PF 20-JUN-2002; 2002US-00176913.  
XX PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 11-OCT-1997; 97US-0062280P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 03-NOV-1997; 97WO-US020069.  
PR 15-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 21-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082589P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.

PR	15-MAY-1998;	98US-0085579P.	PR	17-AUG-1998;	98US-0096766P.
PR	15-MAY-1998;	98US-0085580P.	PR	17-AUG-1998;	98US-0096867P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096891P.
PR	15-MAY-1998;	98US-0085700P.	PR	17-AUG-1998;	98US-0096897P.
PR	18-MAY-1998;	98US-0086023P.	PR	18-AUG-1998;	98US-0096949P.
PR	22-MAY-1998;	98US-0086392P.	PR	18-AUG-1998;	98US-0096959P.
PR	22-MAY-1998;	98US-0086486P.	PR	18-AUG-1998;	98US-0097022P.
PR	28-MAY-1998;	98US-0087098P.	PR	26-AUG-1998;	98US-0097952P.
PR	28-MAY-1998;	98US-0087208P.	PR	26-AUG-1998;	98US-0097954P.
PR	02-JUN-1998;	98US-0087609P.	PR	26-AUG-1998;	98US-0097955P.
PR	02-JUN-1998;	98US-0087759P.	PR	26-AUG-1998;	98US-0097971P.
PR	03-JUN-1998;	98US-0087827P.	PR	26-AUG-1998;	98US-0097974P.
PR	04-JUN-1998;	98US-0088025P.	PR	26-AUG-1998;	98US-0098014P.
PR	04-JUN-1998;	98US-0088028P.	PR	01-SEP-1998;	98US-0098166P.
PR	04-JUN-1998;	98US-0088029P.	PR	01-SEP-1998;	98US-0098723P.
PR	04-JUN-1998;	98US-0088033P.	PR	02-SEP-1998;	98US-0098803P.
PR	04-JUN-1998;	98US-0088326P.	PR	02-SEP-1998;	98US-0098821P.
PR	05-JUN-1998;	98US-0088167P.	PR	02-SEP-1998;	98US-0098843P.
PR	05-JUN-1998;	98US-0088202P.	PR	09-SEP-1998;	98US-0099602P.
PR	05-JUN-1998;	98US-0088212P.	PR	10-SEP-1998;	98US-0099741P.
PR	05-JUN-1998;	98US-0088217P.	PR	10-SEP-1998;	98US-0099754P.
PR	09-JUN-1998;	98US-0088655P.	PR	10-SEP-1998;	98US-0099763P.
PR	10-JUN-1998;	98US-0088722P.	PR	10-SEP-1998;	98US-0099812P.
PR	10-JUN-1998;	98US-0088738P.	PR	10-SEP-1998;	98US-0099812P.
PR	10-JUN-1998;	98US-0088740P.	PR	14-SEP-1998;	98US-0099812P.
PR	10-JUN-1998;	98US-0088811P.	PR	15-SEP-1998;	98US-0100388P.
PR	10-JUN-1998;	98US-0088824P.	PR	16-SEP-1998;	98US-0100662P.
PR	10-JUN-1998;	98US-0088825P.	PR	16-SEP-1998;	98US-0100664P.
PR	10-JUN-1998;	98US-0088826P.	PR	16-SEP-1998;	98US-0101751P.
PR	11-JUN-1998;	98US-0088861P.	PR	16-SEP-1998;	98US-0101933P.
PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100683P.
PR	11-JUN-1998;	98US-0088876P.	PR	17-SEP-1998;	98US-0100684P.
PR	12-JUN-1998;	98US-0089090P.	PR	17-SEP-1998;	98US-0100919P.
PR	12-JUN-1998;	98US-0089105P.	PR	17-SEP-1998;	98US-0100930P.
PR	16-JUN-1998;	98US-0089512P.	PR	17-SEP-1998;	98US-0101943P.
PR	16-JUN-1998;	98US-0089514P.	PR	18-SEP-1998;	98US-0100849P.
PR	17-JUN-1998;	98US-0089538P.	PR	18-SEP-1998;	98US-0101014P.
PR	17-JUN-1998;	98US-0089598P.	PR	18-SEP-1998;	98US-0101068P.
PR	17-JUN-1998;	98US-0089598P.	PR	23-SEP-1998;	98US-0101471P.
PR	18-JUN-1998;	98US-0089908P.	PR	23-SEP-1998;	98US-0101472P.
PR	19-JUN-1998;	98US-0089952P.	PR	23-SEP-1998;	98US-0101475P.
PR	22-JUN-1998;	98US-0090252P.	PR	23-SEP-1998;	98US-0101477P.
PR	22-JUN-1998;	98US-0090254P.	PR	24-SEP-1998;	98US-0101738P.
PR	24-JUN-1998;	98US-0090429P.	PR	24-SEP-1998;	98US-0101739P.
PR	24-JUN-1998;	98US-0090435P.	PR	24-SEP-1998;	98US-0101743P.
PR	24-JUN-1998;	98US-0090444P.	PR	25-SEP-1998;	98US-0101922P.
PR	24-JUN-1998;	98US-0090461P.	PR	25-SEP-1998;	98US-0101786P.
PR	24-JUN-1998;	98US-0090535P.	PR	29-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090540P.	PR	29-SEP-1998;	98US-0102240P.
PR	25-JUN-1998;	98US-0090676P.	PR	29-SEP-1998;	98US-0102330P.
PR	25-JUN-1998;	98US-0090688P.	PR	29-SEP-1998;	98US-0102331P.
PR	25-JUN-1998;	98US-0090690P.	PR	30-SEP-1998;	98US-0102457P.
PR	25-JUN-1998;	98US-0090694P.	PR	30-SEP-1998;	98US-0102570P.
PR	25-JUN-1998;	98US-0090695P.			
PR	25-JUN-1998;	98US-0090696P.			
PR	26-JUN-1998;	98US-00105413.			
PR	26-JUN-1998;	98US-0090862P.			
PR	26-JUN-1998;	98US-0090863P.			
PR	26-JUN-1998;	98US-0091010P.			
PR	01-JUL-1998;	98US-0091135P.			
PR	01-JUL-1998;	98US-0091544P.			
PR	02-JUL-1998;	98US-0091478P.			
PR	02-JUL-1998;	98US-0091486P.			
PR	02-JUL-1998;	98US-0091626P.			
PR	02-JUL-1998;	98US-0091628P.			
PR	02-JUL-1998;	98US-0091632P.			
PR	24-JUL-1998;	98US-0094006P.			
PR	04-AUG-1998;	98US-0095282P.			
PR	10-AUG-1998;	98US-0095998P.			
PR	10-AUG-1998;	98US-0096012P.			
PR	17-AUG-1998;	98US-0096757P.			

Query Match

Best Local Similarity

Matches

100.0%;

100.0%;

409;

Score

409;

DB

6;

Length

409;

Conservative

0;

Mismatches

0;

Indels

0;

Gaps

0;

QY

1

MEGESTSAVLGSGFVLGALAFQHLN

TS

DS

TG

FL

GE

VK

GE

AK

NS

IT

DS

Q

MD

VE

VY

T

ID

60

Db

1

MEGESTSAVLGSGFVLGALAFQHLN

TS

DS

TG

FL

GE

VK

GE

AK

NS

IT

DS

Q

MD

VE

VY

T

ID

60

QY

61

IQKYPQVQLFSPYNSGVEVNEQAL

KK

IL

SN

VK

NV

GV

WK

FR

HS

DQ

IM

T

FR

ER

LL

HK

N

120

Db

61

IQKYPQVQLFSPYNSGVEVNEQAL

KK

IL

SN

VK

NV

GV

WK

FR

HS

DQ

IM

T

FR

ER

LL

HK

N

120

QY

121

LOEHFSNQDLVFLLLTPSIIT

ES

CS

TH

RL

HS

LY

KP

QK

GL

FH

RV

PL

V

AN

LG

MS

EQ

LY

180

Db

121

LOEHFSNQDLVFLLLTPSIIT

ES

CS

TH

RL

HS

LY

KP

QK

GL

FH

RV

PL

V

AN

LG

MS

EQ

LY

180

QY

181

TVSGSCMSTGFSRAVQTHSSK

FF

ED

GS

LV

KE

VH

KIN

EM

YAS

LO

EL

KS

I

CK

VE

DS

EQ

AV

240

Db

181

TVSGSCMSTGFSRAVQTHSSK

FF

ED

GS

LV

KE

VH

KIN

EM

YAS

LO

EL

KS

I

CK

VE

DS

EQ

AV

240

QY	241	DKLVKDVNRLKREIEKRGAGIQAAAEKNTOKDPOENIFLCOALRTFFPNSEFLHSCVMS	300
Db	241	DKLVKDVNRLKREIEKRGAGIQAAAEKNTOKDPOENIFLCOALRTFFPNSEFLHSCVMS	300
QY	301	LKNRHVSKSCNYYNHLVDVNDLTLVVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS	360
Db	301	LKNRHVSKSCNYYNHLVDVNDLTLVVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS	360
QY	361	RLDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF	409
Db	361	RLDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF	409
RESULT 65			
ID	ABU72297	ABU72297 standard; protein; 409 AA.	
XX	AC	ABU72297;	
DT	16-JUN-2003	(first entry)	
XX	DE	Human PRO polypeptide #11.	
XX	KW	Human; PRO polypeptide; secreted and transmembrane protein;	
XX	OS	anti-PRO antibody; diagnostic assay; gene expression.	
XX	OS	Homo sapiens.	
XX	US	US2002182638-A1.	
XX	PD	05-DEC-2002.	
XX	XX	02-MAY-2002; 2002US-00063547.	
XX	PR	30-DEC-1998; 98KX-00062142.	
XX	PR	08-MAR-1999; 99WO-US005028.	
XX	PR	14-MAY-1999; 99US-00311832.	
XX	PR	14-MAY-1999; 99WO-US010733.	
XX	PR	25-AUG-1999; 99US-00380137.	
XX	PR	25-AUG-1999; 99US-00380138.	
XX	PR	25-AUG-1999; 99US-00380139.	
XX	PR	25-AUG-1999; 99US-00380142.	
XX	PR	15-SEP-1999; 99US-00397342.	
XX	PR	15-SEP-1999; 99US-00403297.	
XX	PR	12-OCT-1999; 99US-00423844.	
XX	PR	30-DEC-1999; 99WO-US031274.	
XX	PR	18-FEB-2000; 2000WO-US004341.	
XX	PR	01-MAR-2000; 2000WO-US005601.	
XX	PR	02-MAR-2000; 2000WO-US005841.	
XX	PR	21-MAR-2000; 2000WO-US007532.	
XX	PR	22-MAY-2000; 2000WO-US014042.	
XX	PR	02-JUN-2000; 2000WO-US015264.	
XX	PR	22-AUG-2000; 2000US-00644848.	
XX	PR	24-AUG-2000; 2000WO-US023328.	
XX	PR	18-SEP-2000; 2000US-00664610.	
XX	PR	18-SEP-2000; 2000US-00665350.	
XX	PR	08-NOV-2000; 2000US-00709238.	
XX	PR	10-NOV-2000; 2000WO-US030873.	
XX	PR	01-DEC-2000; 2000WO-US032678.	
XX	PR	20-DEC-2000; 2000US-00747259.	
XX	PR	20-DEC-2000; 2000WO-US034956.	
XX	PR	28-FEB-2001; 2001WO-US006520.	
XX	PR	22-MAR-2001; 2001US-00816744.	
XX	PR	10-MAY-2001; 2001US-00854208.	
XX	PR	10-MAY-2001; 2001US-00854280.	
XX	PR	30-MAY-2001; 2001US-00870574.	
XX	PR	01-JUN-2001; 2001WO-US017800.	
XX	PR	05-JUN-2001; 2001US-00874503.	
XX	PR	29-JUN-2001; 2001US-00869599.	
XX	PR	18-JUL-2001; 2001US-00908827.	
XX	PR	06-DEC-2001; 2001US-00006867.	
XX	XX		
PA	(GETH )	GENENTECH INC.	
XX	Eaton DL,	Filvaroff E,	Gerritsen ME, Goddard A, Godowski PJ;
PI	Grimaldi JC,	Gurney AL,	Watanabe CK, Wood WI,
XX	WPI; 2003-328612/04.		
DR	N-PSDB; ACA63996.		
XX	PI	An isolated secreted transmembrane polypeptide designated PRO, useful as	
PT	a therapeutic agent.		
XX	PS	Disclosure; Fig 22; 236pp; English.	
XX	XX	The present invention relates to the isolation of novel human PRO	
CC	polypeptides, and the polynucleotide sequences encoding them. The PRO		
CC	polypeptides are secreted and transmembrane proteins. The PRO		
CC	polypeptides and polynucleotides are useful for preparing a medicament		
CC	useful in the treatment of a condition responsive to anti-PRO antibody.		
CC	Anti-PRO antibodies are useful in diagnostic assays for PRO, by detecting		
CC	its expression in specific cells, tissues or serum, and for affinity		
CC	purification of PRO from recombinant cell culture or natural sources.		
CC	ABU72287-ABU72370 represent the human PRO polypeptides of the invention		
XX	SQ	Sequence 409 AA;	
Query Match 100.0%; Score 409; DB 6; Length 409;			
Best Local Similarity 100.0%; Fred. No. 0;			
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
QY	1	MEGESTSAVLGFLGALAFQHLNTDSDTEGFLGVEKGEAKNSITDSQMDVVEVYITD	60
Db	1	MEGESTSAVLGFLGALAFQHLNTDSDTEGFLGVEKGEAKNSITDSQMDVVEVYITD	60
QY	61	IQKYPICYQLFSPFYNSSGVEVNEQALKILSNKKNVGVGHYKFRHSQDQIMTFRLLHKN	120
Db	61	IQKYPICYQLFSPFYNSSGVEVNEQALKILSNKKNVGVGHYKFRHSQDQIMTFRLLHKN	120
QY	121	LQEHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK	180
Db	121	LQEHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK	180
QY	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKVEHKINEMVYASIQEELKSCCKVEDSEQAV	240
Db	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKVEHKINEMVYASIQEELKSCCKVEDSEQAV	240
QY	241	DKLVKDVNRLKREIEKRGAGIQAAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
Db	241	DKLVKDVNRLKREIEKRGAGIQAAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
QY	301	LKNRHVSKSCNYYNHLVDVNDLTLVVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS	360
Db	301	LKNRHVSKSCNYYNHLVDVNDLTLVVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS	360
QY	361	RLDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF	409
Db	361	RLDQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF	409
RESULT 66			
ID	ABU65330	ABU65330 standard; protein; 409 AA.	
XX	AC	ABU65330;	
XX	DT	16-MAY-2003	(first entry)
XX	DE	Human PRO polypeptide #67.	
XX	KW	Human; PRO; cytostatic; chromosome mapping; gene mapping;	
XX	KW	protein electrophoresis; tumour necrosis factor-alpha; TNF-alpha; blood;	
XX	KW	chondrocyte differentiation; chondrocyte proliferation; tumour.	
XX	OS	Homo sapiens.	

XX US2003032102-A1.  
PN 13-FEB-2003.  
XX 17-JUN-2002; 2002US-00173697.  
XX 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0082250P.  
PR 21-OCT-1997; 97US-0083486P.  
PR 24-OCT-1997; 97US-00631120P.  
PR 24-OCT-1997; 97US-00631121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0083564P.  
PR 29-OCT-1997; 97US-0083734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0083335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083553P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 24-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.

PR	02-SEP-1998;	98US-0098821P.			
PR	02-SEP-1998;	98US-0098843P.			
PR	09-SEP-1998;	98US-0099602P.			
PR	10-SEP-1998;	98US-0099741P.			
PR	10-SEP-1998;	98US-0099754P.			
PR	10-SEP-1998;	98US-0099763P.			
PR	10-SEP-1998;	98US-0099812P.			
PR	15-SEP-1998;	98US-0100388P.			
PR	16-SEP-1998;	98US-0100662P.			
PR	16-SEP-1998;	98US-0100664P.			
PR	16-SEP-1998;	98US-0101751P.			
PR	16-SEP-1998;	98US-0101751P.			
PR	16-SEP-1998;	98US-0101751P.			
PR	17-SEP-1998;	98US-0100683P.			
PR	17-SEP-1998;	98US-0100684P.			
PR	17-SEP-1998;	98US-0100919P.			
PR	17-SEP-1998;	98US-0100930P.			
PR	18-SEP-1998;	98US-0100849P.			
PR	18-SEP-1998;	98US-0101014P.			
PR	18-SEP-1998;	98US-0101068P.			
PR	23-SEP-1998;	98US-0101471P.			
PR	23-SEP-1998;	98US-0101472P.			
PR	23-SEP-1998;	98US-0101475P.			
PR	23-SEP-1998;	98US-0101475P.			
PR	23-SEP-1998;	98US-0101477P.			
PR	24-SEP-1998;	98US-0101738P.			
PR	24-SEP-1998;	98US-0101739P.			
PR	24-SEP-1998;	98US-0101743P.			
PR	24-SEP-1998;	98US-0101922P.			
PR	25-SEP-1998;	98US-0101786P.			
PR	29-SEP-1998;	98US-0102207P.			
PR	29-SEP-1998;	98US-0102240P.			
PR	29-SEP-1998;	98US-0102330P.			
PR	29-SEP-1998;	98US-0102331P.			
PR	30-SEP-1998;	98US-0102487P.			
PR	30-SEP-1998;	98US-0102570P.			
PR	30-SEP-1998;	98US-0102571P.			
PR	01-OCT-1998;	98US-0102684P.			
PR	01-OCT-1998;	98US-0102687P.			
PR	02-OCT-1998;	98US-0102965P.			
PR	06-OCT-1998;	98US-0103258P.			
PR	06-OCT-1998;	98US-0103449P.			
PR	07-OCT-1998;	98US-00168978.			
Query Match 100.0%; Score 409; DB 6; Length 409;					
Best Local Similarity 100.0%; Pred. No. 0;					
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;					
Qy	1	MEGESTSAVLSGFLGALAFQHLNTSDTEGFLGKVGKAKNSITDSQMDDEVVYITD	60		
Db	1	MEGESTSAVLSGFLGALAFQHLNTSDTEGFLGKVGKAKNSITDSQMDDEVVYITD	60		
Qy	61	IQKIYPCYOLFSGVNSGVEVNEQALKILSNVKNVGVKFRHSDQIMTFRELLHKN	120		
Db	61	IQKIYPCYOLFSGVNSGVEVNEQALKILSNVKNVGVKFRHSDQIMTFRELLHKN	120		
Qy	121	LOEHFNSQDLVLLLTPTSITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK	180		
Db	121	LOEHFNSQDLVLLLTPTSITSCSTHRLHSLYKPKGLFHRVPLVAVANLGMSEQLGYK	180		
Qy	181	TVSGSCMSTGFRGAVQTHSSKFEEDGSLKVEHKINEMVASLOELKICKVEDSEQAV	240		
Db	181	TVSGSCMSTGFRGAVQTHSSKFEEDGSLKVEHKINEMVASLOELKICKVEDSEQAV	240		
Qy	241	DKLVKDVNLKREIEKRGQAQQAAREKNIQKDPOENIFLCOALRTPFPNSEFLHSCVMS	300		
Db	241	DKLVKDVNLKREIEKRGQAQQAAREKNIQKDPOENIFLCOALRTPFPNSEFLHSCVMS	300		
Qy	301	LKRVHVSCKSCNHNHLDVVNDLTLVHTDIPASPASTPOIHKHKLDDLDLDRWQFKRS	360		
Db	301	LKRVHVSCKSCNHNHLDVVNDLTLVHTDIPASPASTPOIHKHKLDDLDLDRWQFKRS	360		
Qy	361	RLDLDQKRSKANTGSSNODKASKMSSPETDEEIEKMGKFGYRSRPTF	409		
Db	361	RLDLDQKRSKANTGSSNODKASKMSSPETDEEIEKMGKFGYRSRPTF	409		

RESULT 67	
ABU95275	
ID	ABU95275 standard; protein; 409 AA.
XX	AC
XX	ABU95275;
XX	AC
DT	24-JUL-2003 (first entry)
XX	DE
XX	Novel human secreted and transmembrane protein PRO1013.
XX	Human; secreted and transmembrane protein; PRO; cytosolic; gene therapy;
KW	Chromosome mapping; Gene mapping; transgenic animal; knock-out animal;
KW	tumour.
XX	OS
XX	Homo sapiens.
XX	FN
XX	US2003036117-A1.
XX	PD
XX	20-FEB-2003.
XX	PF
XX	21-JUN-2002; 2002US-00176751.
XX	PR
PR	18-SEP-1997; 97US-0059263P.
PR	18-SEP-1997; 97US-0059266P.
PR	17-OCT-1997; 97US-0062250P.
PR	21-OCT-1997; 97US-0063486P.
PR	24-OCT-1997; 97US-0063120P.
PR	24-OCT-1997; 97US-0063121P.
PR	28-OCT-1997; 97US-0063540P.
PR	28-OCT-1997; 97US-0063541P.
PR	28-OCT-1997; 97US-0063544P.
PR	28-OCT-1997; 97US-0063564P.
PR	28-OCT-1997; 97US-0063734P.
PR	31-OCT-1997; 97US-0063870P.
PR	31-OCT-1997; 97US-0064103P.
PR	13-NOV-1997; 97US-0065311P.
PR	21-NOV-1997; 97US-0068120P.
PR	24-NOV-1997; 97US-0068466P.
PR	11-DEC-1997; 97US-0066772P.
PR	11-DEC-1997; 97US-0069335P.
PR	12-DEC-1997; 97US-0069425P.
PR	17-DEC-1997; 97US-0069870P.
PR	18-DEC-1997; 97US-0068017P.
PR	10-MAR-1998; 98US-0077450P.
PR	11-MAR-1998; 98US-0077632P.
PR	11-MAR-1998; 98US-0077649P.
PR	20-MAR-1998; 98US-0078886P.
PR	20-MAR-1998; 98US-0078939P.
PR	27-MAR-1998; 98US-0079664P.
PR	27-MAR-1998; 98US-0079786P.
PR	31-MAR-1998; 98US-0080107P.
PR	31-MAR-1998; 98US-0080194P.
PR	01-APR-1998; 98US-0080327P.
PR	01-APR-1998; 98US-0080333P.
PR	08-APR-1998; 98US-0081049P.
PR	08-APR-1998; 98US-0081070P.
PR	09-APR-1998; 98US-0081195P.
PR	15-APR-1998; 98US-0081838P.
PR	21-APR-1998; 98US-0082568P.
PR	22-APR-1998; 98US-0082569P.
PR	22-APR-1998; 98US-0082704P.
PR	22-APR-1998; 98US-0082797P.
PR	28-APR-1998; 98US-0083322P.
PR	29-APR-1998; 98US-0083495P.
PR	29-APR-1998; 98US-0083496P.
PR	29-APR-1998; 98US-0083499P.
PR	29-APR-1998; 98US-0083559P.
PR	05-MAY-1998; 98US-0084366P.
PR	06-MAY-1998; 98US-0084414P.
PR	07-MAY-1998; 98US-0084639P.
PR	07-MAY-1998; 98US-0084640P.

```
PR 07-MAY-1998; 98US-0084643P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085580P.
PR 15-MAY-1998; 98US-0085582P.
PR 18-MAY-1998; 98US-0085700P.
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087759P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088317P.
PR 09-JUN-1998; 98US-0088555P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 15-JUN-1998; 98US-0089512P.
PR 15-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089338P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090676P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 07-MAY-1998; 98US-0084643P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 23-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.
PR 07-OCT-1998; 98US-00168978.
Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MEGESTSAVLGGFVLGALAFQHLNTSDTEGFLGKVGKAKNSITDSQMDDEVVYITD 60
Db 1 MEGESTSAVLGGFVLGALAFQHLNTSDTEGFLGKVGKAKNSITDSQMDDEVVYITD 60
QY 61 IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRELLHKN 120
Db 61 IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRELLHKN 120
QY 121 LQEHFSNQDLVFLITPSIITESCSTHRLHSYKPKGLFHRVPLVVVANLGMSEQLGYK 180
```

Db 121 LQEHFSNQDLVLLLTPTSIIITESCSTRLEHSLYKPKGLFHRVPLVNVANLGMSEQLGYK 180  
Qy 181 TVSGSCMSTGFRVQVTHSSKFFEDGSLKEVHKINEMVASLOEBLKSIKKVDSQAV 240  
Db 181 TVSGSCMSTGFRVQVTHSSKFFEDGSLKEVHKINEMVASLOEBLKSIKKVDSQAV 240  
Qy 241 DKLVKDVNKLKREIEKRGGAQIOAAEKNIQKDPENIFLCOALRTFFPNSEFLHSCVMS 300  
Db 241 DKLVKDVNKLKREIEKRGGAQIOAAEKNIQKDPENIFLCOALRTFFPNSEFLHSCVMS 300  
Qy 301 LKNRHVSKSCNHNHLDVVDNLTLVVEHTDIPEASPASTPOIIKHKALDLDLDRWQFKRS 360  
Db 301 LKNRHVSKSCNHNHLDVVDNLTLVVEHTDIPEASPASTPOIIKHKALDLDLDRWQFKRS 360  
Qy 361 RLIDTQDKSKANTSSNODKASKMSPTDEIEPKMGFGYSRSPTF 409  
Db 361 RLIDTQDKSKANTSSNODKASKMSPTDEIEPKMGFGYSRSPTF 409

RESULT 68  
ABU71178  
ID ABU71178 standard; protein; 409 AA.  
XX  
AC ABU71178;  
XX  
XX 10-JUN-2003 (first entry)  
DT XX  
DE XX  
DE Human PRO1013 protein.  
XX  
KW Human; PRO; secreted; transmembrane; cytostatic; TNF-alpha; blood;  
KW tumour necrosis factor alpha release; chondrocyte cell; proliferation;  
KW differentiation; tumour; gene therapy.  
XX  
OS Homo sapiens.  
XX  
XX US2003036143-A1.  
PN XX  
PD 20-FEB-2003.  
XX  
XX  
PF 02-JUL-2002; 2002US-00187600.  
XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063340P.  
PR 28-OCT-1997; 97US-0063341P.  
PR 28-OCT-1997; 97US-0063344P.  
PR 28-OCT-1997; 97US-0063356P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.

PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 22-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088367P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-008876P.  
PR 12-JUN-1998; 98US-0089050P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089952P.  
PR 19-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.

PR	06-OCT-1998;	98US-0103449P.
PR	07-OCT-1998;	98US-00116897B.
	Query Match	100.0%; Score 409; DB 6; Length 409;
	Best Local Similarity	100.0%; Pred. No. 0;
	Matches 409; Conservative	0; Mismatches 0; Indels 0; Gaps 0;
QY	1	MEGESTSAVLSCFVLCALAFQHINTDSDTEGFLLGVEKGAENSI TDSQMDDVVVVYTID 60
Db	1	MEGESTSAVLSCFVLGALAFQHLNTDSDTEGFLLGVEKGAENSI TDSQMDDVVVVYTID 60
QY	61	IQKYIFCYQLFGFYNSGGVNECALKKILSNVKKNVGVWKFRHSDQIMTFRERLLHK 120
Db	61	IQXYIFCYQLFSFYNSGGVNECALKKILSNVKKNVGVWKFRHSDQIMTFRERLLHK 120
QY	121	LQHFHNQDLVFLLLTPSIIITSCSTHRLEHSLYKPQKGLFHRVPLVAVNLGMSEQLGYK 180
Db	121	LQHFHNQDLVFLLLTPSIIITSCSTHRLEHSLYKPQKGLFHRVPLVAVNLGMSEQLGYK 180
QY	181	TVSGSCWMTGFSPRAVOTHASKPFEEGSLKEVHKINEMVASLQEELKSICKVEDSEQAV 240
Db	181	TVSGSCWMTGFSPRAVOTHASKPFEEGSLKEVHKINEMVASLQEELKSICKVEDSEQAV 240
QY	241	DKLVKDVNRLKREIEKRGAQIQAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300
Db	241	DKLVKDVNRLKREIEKRGAQIQAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300
QY	301	LKRVHYSKSCNVNHHLDVVNDLTLMVEHTDIPEASPASTPOI I KHKALDLLDDRWFQKRS 360
Db	301	LKRVHYSKSCNVNHHLDVVNDLTLMVEHTDIPEASPASTPOI I KHKALDLLDDRWFQKRS 360
QY	361	RLLDTQDKSKANTGSSNQDKASKMSSPETDEEIERKMGFGESRSPTF 409
Db	361	RLLDTQDKSKANTGSSNQDKASKMSSPETDEEIERKMGFGESRSPTF 409
RESULT 69		
ABO07788		
ID	ABO07788; standard; protein; 409 AA.	
AC	ABO07788;	
XX		
DT	18-AUG-2003 (first entry)	
DE	Human PRO polypeptide #67.	
KW	Human; PRO; secreted polypeptide; transmembrane polypeptide; cytostatic;	
KW	tumour necrosis factor-alpha; TNF-alpha; blood; tumour; chondrocyte cell;	
KW	cancer; adrenal; lung; colon; breast; prostate; rectum; cervix; liver.	
OS	Homo sapiens.	
XX		
PX	US2003032130-A1.	
PD	13-FEB-2003.	
PF	28-JUN-2002; 2002US-00184635.	
XX		
PR	18-SEP-1997; 97US-0059263P.	
PR	18-SEP-1997; 97US-0059266P.	
PR	17-OCT-1997; 97US-0062250P.	
PR	21-OCT-1997; 97US-0063486P.	
PR	24-OCT-1997; 97US-0063120P.	
PR	24-OCT-1997; 97US-0063121P.	
PR	28-OCT-1997; 97US-0063540P.	
PR	28-OCT-1997; 97US-0063541P.	
PR	28-OCT-1997; 97US-0063544P.	
PR	28-OCT-1997; 97US-0063564P.	
PR	29-OCT-1997; 97US-0063734P.	
PR	31-OCT-1997; 97US-0063870P.	
PR	31-OCT-1997; 97US-0064103P.	
PR	13-NOV-1997; 97US-0065311P.	
PR	21-NOV-1997; 97US-0066120P.	



PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079646P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082588P.  
PR 21-APR-1998; 98US-0082589P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083599P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086033P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087608P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088157P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.

PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090441P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090596P.  
PR 26-JUN-1998; 98US-0010541.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095598P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 02-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 03-SEP-1998; 98US-0099602P.  
PR 03-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 15-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.

US2003032138-A1.

(GETH ) GENENTECH INC.

CC The invention also relates to sequences at least 80% identical to the PRO  
CC nucleic acid and polypeptide sequences of the invention, recombinant  
CC vectors and host cells comprising a PRO nucleic acid, a method for the  
CC recombinant production of a PRO polypeptide, antibodies against a PRO  
CC polypeptide, and fusion proteins comprising a PRO polypeptide. Nucleic  
CC acids encoding PRO polypeptides of the invention were initially  
CC identified via homology screening using consensus sequences based on the  
CC extracellular domain sequences from known secreted proteins. Human cDNA  
CC libraries containing sequences of interest were identified using  
CC oligonucleotides based on the consensus sequences, and cDNA clones were  
CC isolated and characterised. The PRO polypeptides are useful for  
CC stimulating release of tumour necrosis factor-alpha (TNF-alpha) from  
CC human blood and may thus be used in the treatment of conditions in which  
CC enhanced TNF-alpha release would be beneficial. They are also useful for  
CC stimulating the proliferation or differentiation of chondrocytes and as  
CC such may be used in the treatment of various bone and/or cartilage  
CC disorders such as arthritis and sports injuries. The PRO polypeptides may  
CC be used in a method for detecting the presence of a tumour (e.g., an  
CC adrenal tumour, lung tumour, colon tumour, breast tumour, prostate  
CC tumour, rectal tumour, cervical tumour or liver tumour) in a mammal. This  
CC method involves comparing the level of expression of the PRO polypeptide  
CC in test and control samples, where a higher level of expression of PRO  
CC polypeptide in the test sample as compared to the control sample is  
CC indicative of the presence of a tumour. The PRO polypeptides are  
CC additionally useful for in drug screening to identify agonists and  
CC antagonists of PRO polypeptides. PRO nucleic acids are useful as  
CC hybridisation probes (for isolation of cDNA molecules), in chromosome and  
CC gene mapping. The nucleic acids can also be used for mapping genes encoding  
CC therapy. The nucleic acids can also be used for mapping genes encoding  
CC PRO polypeptides, for genetic analysis of individuals with genetic  
CC disorders, and for generating either transgenic animals or knock-out  
CC animals which are useful in the development and screening of  
CC therapeutically useful compounds. Sequences ABR6963-ABR70267 represent  
CC the human PRO secreted/transmembrane polypeptides of the invention. Note:  
CC The sequence data for this patent is also available in electronic format  
CC from USPTO at seqdata.uspto.gov/sequence.html

XX Sequence 409 AA;

Query Match		100.0%;	Score 409;	DB 6;	Length 409;
Best Local Similarity		100.0%;	Pred. No. 0;		
Matches 409;		Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
Qy	1	MEGESTSAVLGFGVLCALAFQHLNDSDETEGFLGVEVGEAKNSITDSQMDVVEVVTID	60		
Db	1	MEGESTSAVLGFGVLCALAFQHLNDSDETEGFLGVEVGEAKNSITDSQMDVVEVVTID	60		
Qy	61	IQKYIFCYQLFFPNSGGEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRERLLHKN	120		
Db	61	IQKYIFCYQLFFPNSGGEVNEQALKILSNVKNVGVWYKFRHSDQIMTFRERLLHKN	120		
Qy	121	LQEHFSDQLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVWNLGMSQLGYK	180		
Db	121	LQEHFSDQLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVWNLGMSQLGYK	180		
Qy	181	TVSGSCWSTGFSRAVOTHSKFFEDGSLKEVHKINEMVYASLQEBLKSKCKVEDSEQAV	240		
Db	181	TVSGSCWSTGFSRAVOTHSKFFEDGSLKEVHKINEMVYASLQEBLKSKCKVEDSEQAV	240		
Qy	241	DKLVKDVNRLKRIEKRGQAQIAAREKNIQKDPQENIFLCOALRTFFPNSFLHSCVMS	300		
Db	241	DKLVKDVNRLKRIEKRGQAQIAAREKNIQKDPQENIFLCOALRTFFPNSFLHSCVMS	300		
Qy	301	LKNRHVSKSCNNHLLDVVDNLTAVEHTDIPASPASTPQIIKHKALDLDLRQFKRS	360		
Db	301	LKNRHVSKSCNNHLLDVVDNLTAVEHTDIPASPASTPQIIKHKALDLDLRQFKRS	360		
Qy	361	RLDLDQDKRSKANTGSSNQDKASKMSPTDEIEIKMGFGYRSRPTF	409		
Db	361	RLDLDQDKRSKANTGSSNQDKASKMSPTDEIEIKMGFGYRSRPTF	409		

RESULT 71

ABR69362	ABR69362 standard; protein; 409 AA.
XX	ABR69362;
AC	ABR69362;
XX	11-AUG-2003 (first entry)
DT	Human secreted polypeptide PRO1013, SEQ ID NO:134.
XX	Human; PRO; secreted protein; transmembrane protein;
XX	extracellular domain; tumour necrosis factor-alpha; TNF-alpha;
KW	chondrocyte; proliferation; differentiation; cartilage disorder;
KW	bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;
KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;
KW	liver; drug screening; transgenic animal; genetic analysis;
KW	antiarthritic; vulnertary; gene therapy.
XX	Homo sapiens.
OS	US2003036132-A1.
XX	20-FEB-2003.
XX	28-JUN-2002; 2002US-00184629.
XX	18-SEP-1997; 97US-0059263P.
PR	18-SEP-1997; 97US-0059266P.
PR	17-OCT-1997; 97US-0062250P.
PR	21-OCT-1997; 97US-0063486P.
PR	24-OCT-1997; 97US-0063120P.
PR	24-OCT-1997; 97US-0063121P.
PR	28-OCT-1997; 97US-006340P.
PR	28-OCT-1997; 97US-006341P.
PR	28-OCT-1997; 97US-0063544P.
PR	28-OCT-1997; 97US-0063564P.
PR	29-OCT-1997; 97US-0063734P.
PR	31-OCT-1997; 97US-0063870P.
PR	31-OCT-1997; 97US-0064103P.
PR	13-NOV-1997; 97US-0065311P.
PR	13-NOV-1997; 97US-0066120P.
PR	24-NOV-1997; 97US-0066466P.
PR	24-NOV-1997; 97US-0066772P.
PR	11-DEC-1997; 97US-0069335P.
PR	12-DEC-1997; 97US-0069425P.
PR	17-DEC-1997; 97US-0069870P.
PR	18-DEC-1997; 97US-0068017P.
PR	10-MAR-1998; 98US-0077450P.
PR	11-MAR-1998; 98US-0077632P.
PR	11-MAR-1998; 98US-0077649P.
PR	20-MAR-1998; 98US-0078886P.
PR	20-MAR-1998; 98US-0078939P.
PR	27-MAR-1998; 98US-0079664P.
PR	27-MAR-1998; 98US-0079786P.
PR	31-MAR-1998; 98US-0080107P.
PR	31-MAR-1998; 98US-0080194P.
PR	01-APR-1998; 98US-0080327P.
PR	01-APR-1998; 98US-0080333P.
PR	08-APR-1998; 98US-0081049P.
PR	08-APR-1998; 98US-0081070P.
PR	09-APR-1998; 98US-0081195P.
PR	15-APR-1998; 98US-0081838P.
PR	21-APR-1998; 98US-0082588P.
PR	21-APR-1998; 98US-0082569P.
PR	22-APR-1998; 98US-0082704P.
PR	22-APR-1998; 98US-0082797P.
PR	28-APR-1998; 98US-0083322P.
PR	29-APR-1998; 98US-0083495P.
PR	29-APR-1998; 98US-0083496P.
PR	29-APR-1998; 98US-0083499P.
PR	29-APR-1998; 98US-0083559P.
PR	05-MAY-1998; 98US-0084366P.
PR	06-MAY-1998; 98US-0084414P.
PR	07-MAY-1998; 98US-0084639P.

```
PR 07-MAY-1998; 98US-0084640P.
PR 07-MAY-1998; 98US-0084643P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085580P.
PR 15-MAY-1998; 98US-0085582P.
PR 15-MAY-1998; 98US-0085700P.
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087758P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088555P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089103P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 04-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095598P.
PR 07-MAY-1998; 98US-0084640P.
PR 07-MAY-1998; 98US-0084643P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085580P.
PR 15-MAY-1998; 98US-0085582P.
PR 15-MAY-1998; 98US-0085700P.
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087758P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088555P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089103P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 04-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.
PR 10-AUG-1998; 98US-0095598P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 26-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 03-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 15-SEP-1998; 98US-0100562P.
PR 16-SEP-1998; 98US-0100564P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101014P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 25-SEP-1998; 98US-0102207P.
PR 25-SEP-1998; 98US-0102240P.
PR 25-SEP-1998; 98US-0102330P.
PR 25-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGFLGEGKAKNSITDSQMDVVEVYTID 60
Db 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGFLGEGKAKNSITDSQMDVVEVYTID 60
Qy 61 IQYIFCYQLFSPYNSGGEVNEQAKKILSNVKNVGVGYKFRHSDQIMTFRERLLHKN 120
Db 61 IQYIFCYQLFSPYNSGGEVNEQAKKILSNVKNVGVGYKFRHSDQIMTFRERLLHKN 120
Qy 121 LQEHFHNQDLVFLLLTPSIITSCSTRHLEHSLYKPKQGLFHRVPLVAVNLGMSQGLGYK 180
Db 121 LQEHFHNQDLVFLLLTPSIITSCSTRHLEHSLYKPKQGLFHRVPLVAVNLGMSQGLGYK 180
Qy 181 TVSGSCMSTGFSRAVTHSSKFEEDGSLKEVHKINEMYASLQELKSIKXKVEDSEQAV 240
```

```

Db 181 TVSGSCMTGFSRAVQTHSSKFFEDGSLKXVHKINEMVASLQELKSIKCKVEDSEQAV 240
Qy 241 DKLVKDVNRLKREIEKRGGAQIOAAREKNIQKDPQENIFLCOALRTFFNFSEFLSCVMS 300
Db 241 DKLVKDVNRLKREIEKRGGAQIOAAREKNIQKDPQENIFLCOALRTFFNFSEFLSCVMS 300
Qy 301 LKNRHVSKSCNHNHLDVVDNLTLMVHEHTDIPFASPTPQIIKHKALDLDORWQFKRS 360
Db 301 LKNRHVSKSCNHNHLDVVDNLTLMVHEHTDIPFASPTPQIIKHKALDLDORWQFKRS 360
Qy 361 RLDDTQDKRSKANTGSSNQDKASKMSPPETDEIEKMGFGFYSRSPTF 409
Db 361 RLDDTQDKRSKANTGSSNQDKASKMSPPETDEIEKMGFGFYSRSPTF 409

RESULT 72
AB001503
ID AB001503 standard; protein; 409 AA.
XX
AC AB001503;
XX
DT 07-AUG-2003 (first entry)
XX
DE Human PRO polypeptide #67.
XX
KW Human; PRO; tumour; cytostatic; cancer; secreted protein; lung;
KW transmembrane protein; tumour necrosis factor alpha; TNF-alpha; adrenal;
KW chondrocyte cell; colon; breast; prostate; rectum; cervix; liver.
XX
OS Homo sapiens.
XX
FN US2003008353-A1.
XX
PD 09-JAN-2003.
XX
PF 21-JUN-2002; 2002US-00176758.
XX
PR 18-SEP-1997; 97US-0059263P.
PR 18-SEP-1997; 97US-0059266P.
PR 17-OCT-1997; 97US-0062250P.
PR 21-OCT-1997; 97US-0063486P.
PR 24-OCT-1997; 97US-0063120P.
PR 24-OCT-1997; 97US-0063121P.
PR 28-OCT-1997; 97US-0063540P.
PR 28-OCT-1997; 97US-0063541P.
PR 28-OCT-1997; 97US-0063544P.
PR 28-OCT-1997; 97US-0063564P.
PR 29-OCT-1997; 97US-0063734P.
PR 31-OCT-1997; 97US-0063870P.
PR 31-OCT-1997; 97US-0064103P.
PR 13-NOV-1997; 97US-0065311P.
PR 21-NOV-1997; 97US-0066120P.
PR 24-NOV-1997; 97US-0066456P.
PR 24-NOV-1997; 97US-0066772P.
PR 11-DEC-1997; 97US-0069335P.
PR 12-DEC-1997; 97US-0069425P.
PR 17-DEC-1997; 97US-0069870P.
PR 18-DEC-1997; 97US-0068017P.
PR 10-MAR-1998; 98US-0077450P.
PR 11-MAR-1998; 98US-0077632P.
PR 11-MAR-1998; 98US-0077649P.
PR 20-MAR-1998; 98US-0078886P.
PR 20-MAR-1998; 98US-0078939P.
PR 27-MAR-1998; 98US-0079664P.
PR 27-MAR-1998; 98US-0079786P.
PR 31-MAR-1998; 98US-0080107P.
PR 31-MAR-1998; 98US-0080194P.
PR 01-APR-1998; 98US-0080327P.
PR 01-APR-1998; 98US-0080333P.
PR 08-APR-1998; 98US-0081049P.
PR 08-APR-1998; 98US-0081070P.
PR 09-APR-1998; 98US-0081195P.

```

```

PR 15-APR-1998; 98US-0081838P.
PR 21-APR-1998; 98US-0082568P.
PR 21-APR-1998; 98US-0082569P.
PR 22-APR-1998; 98US-0082704P.
PR 22-APR-1998; 98US-0082797P.
PR 28-APR-1998; 98US-0083322P.
PR 29-APR-1998; 98US-0083495P.
PR 29-APR-1998; 98US-0083496P.
PR 29-APR-1998; 98US-0083499P.
PR 29-APR-1998; 98US-0083599P.
PR 05-MAY-1998; 98US-0084366P.
PR 06-MAY-1998; 98US-0084414P.
PR 07-MAY-1998; 98US-0084639P.
PR 07-MAY-1998; 98US-0084640P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-OCT-1998; 98WO-US021141.
PR 01-DEC-1998; 98WO-US025108.
PR 08-MAR-1999; 99WO-US010733.
PR 14-MAY-1999; 99WO-US012252.
PR 02-JUN-1999; 99WO-US020111.
PR 15-SEP-1999; 99WO-US021090.
PR 01-DEC-1999; 99WO-US026301.
PR 02-DEC-1999; 99WO-US028551.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 24-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 20-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-JUN-2001; 2001WO-US017800.
PR 28-JUN-2001; 2001WO-US019692.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 29-AUG-2001; 2001WO-US027099.
PR 15-JAN-2002; 2002US-00052586.

```

(GETH ) GENENTECH INC.

Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;  
Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;

WPI; 2003-341328/32.

N-PSDB; ACD06999.

Three hundred and five nucleic acids encoding secreted and transmembrane polypeptides, designated as PRO, useful for detecting the presence of, or treating tumor, e.g. adrenal, lung, colon, breast, prostate, rectal, cervical or liver tumor.

Claim 11; Fig 134; 707pp; English.

The invention relates to human PRO polypeptides (secreted and transmembrane polypeptides) and the polynucleotides encoding them. The invention also relates to an antibody that specifically binds to a PRO polypeptide, a method for stimulating the release of tumour necrosis factor alpha (TNF-alpha) from human blood by contacting the blood with a PRO polypeptide and a method for stimulating the proliferation or differentiation of chondrocyte cells by contacting the cells with a PRO

CC polypeptide. The polypeptides and polynucleotides are useful for  
CC detecting the presence of a tumour, such as an adrenal, lung, colon,  
CC breast, prostate, rectal, cervical or liver tumour, and for treating such  
CC tumours. The polynucleotides are useful as hybridisation probes, in  
CC chromosome and gene mapping and in generating antisense RNA or DNA. The  
CC polypeptides are useful as pharmaceuticals, diagnostics, biosensors or  
CC bioeffectors. Both are useful in tissue typing. Sequences ABO01437-  
CC ABO01741 represent human PRO polypeptides of the invention. Note: The  
CC sequence data for this patent is also available in electronic format from  
CC USPTO at seqdata.uspto.gov/sequence.html  
XX  
XX

SQ Sequence 409 AA;

Query Match	100.0%;	Score 409;	DB 6;	Length 409;
Best Local Similarity	100.0%;	Pred. No. 0;		
Matches 409;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;
QY 1	MEGESTSAVLGFLGALAFQHLNLTDSDEGFLGGEVGEAKNSITDSQMDVVEVYITD	60		
DB 1	MEGESTSAVLGFLGALAFQHLNLTDSDEGFLGGEVGEAKNSITDSQMDVVEVYITD	60		
QY 61	IOKYIPCYOLFQFYNSSGEVNEQALKKILSNVKNVGVGKPRRHSDDQIMTFRELLHKN	120		
DB 61	IOKYIPCYOLFQFYNSSGEVNEQALKKILSNVKNVGVGKPRRHSDDQIMTFRELLHKN	120		
QY 121	LOEHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVWNLGMSQLGYK	180		
DB 121	LOEHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVWNLGMSQLGYK	180		
QY 181	TVSGSCWSTGFRNAVOTHSKFEEDGSLKEVHKINEMVYASIQEELKSIKCKVEDSEQAV	240		
DB 181	TVSGSCWSTGFRNAVOTHSKFEEDGSLKEVHKINEMVYASIQEELKSIKCKVEDSEQAV	240		
QY 241	DKLVKDVNLRKREIEKRGQAQIOAAREKNIQKDPQENIFLCOALRTFFPNSFLLHSCVMS	300		
DB 241	DKLVKDVNLRKREIEKRGQAQIOAAREKNIQKDPQENIFLCOALRTFFPNSFLLHSCVMS	300		
QY 301	LKNRHVSCKSNVNHLDVVDNLTLVVEHTDIPASPASTPTQIIKHKALDLDLRQFKRS	360		
DB 301	LKNRHVSCKSNVNHLDVVDNLTLVVEHTDIPASPASTPTQIIKHKALDLDLRQFKRS	360		
QY 361	RLLDTDQKRSKANTGSSNQDKASKMSPPETDEIEKMGKFGYRSPTF	409		
DB 361	RLLDTDQKRSKANTGSSNQDKASKMSPPETDEIEKMGKFGYRSPTF	409		

## RESULT 73

ABU81305  
ID ABU81305 standard; protein; 409 AA.

XX AC ABU81305;

XX DT 24-JUN-2003 (first entry)

XX DE Human PRO polypeptide #67.

XX KW Human; PRO; tumour necrosis factor-alpha; TNF-alpha; blood;  
XX KW chondrocyte cell; tumour; adrenal; kidney; lung; colon; breast; prostate;  
XX KW rectum; cervix; liver; cytostatic.

XX OS Homo sapiens.

XX PN US2003017542-A1.

XX PD 23-JAN-2003.

XX PF 20-JUN-2002; 2002US-00176749.

XX PR 18-SEP-1997; 97US-0059263P.

XX PR 18-SEP-1997; 97US-0059266P.

XX PR 17-OCT-1997; 97US-0062250P.

XX PR 21-OCT-1997; 97US-0063486P.

XX PR 24-OCT-1997; 97US-0063120P.

PR 24-OCT-1997;	97US-0063121P.
PR 28-OCT-1997;	97US-0063540P.
PR 28-OCT-1997;	97US-0063541P.
PR 28-OCT-1997;	97US-0063544P.
PR 28-OCT-1997;	97US-0063564P.
PR 29-OCT-1997;	97US-0063734P.
PR 31-OCT-1997;	97US-0063870P.
PR 31-OCT-1997;	97US-0064103P.
PR 13-NOV-1997;	97US-0065311P.
PR 21-NOV-1997;	97US-0066120P.
PR 24-NOV-1997;	97US-0066466P.
PR 24-NOV-1997;	97US-0066772P.
PR 11-DEC-1997;	97US-0069335P.
PR 12-DEC-1997;	97US-0069425P.
PR 17-DEC-1997;	97US-0069870P.
PR 18-DEC-1997;	97US-0068017P.
PR 10-MAR-1998;	97US-0077450P.
PR 11-MAR-1998;	97US-0077632P.
PR 11-MAR-1998;	97US-0077649P.
PR 20-MAR-1998;	97US-0078866P.
PR 20-MAR-1998;	97US-0078939P.
PR 27-MAR-1998;	97US-0079664P.
PR 27-MAR-1998;	97US-0079786P.
PR 31-MAR-1998;	97US-0080107P.
PR 31-MAR-1998;	97US-0080194P.
PR 01-APR-1998;	97US-0080327P.
PR 01-APR-1998;	97US-0080333P.
PR 08-APR-1998;	97US-0081049P.
PR 08-APR-1998;	97US-0081070P.
PR 09-APR-1998;	97US-0081195P.
PR 15-APR-1998;	97US-0081838P.
PR 21-APR-1998;	97US-0082568P.
PR 21-APR-1998;	97US-0082569P.
PR 22-APR-1998;	97US-0082704P.
PR 22-APR-1998;	97US-0082797P.
PR 28-APR-1998;	97US-0083322P.
PR 29-APR-1998;	97US-0083495P.
PR 29-APR-1998;	97US-0083496P.
PR 29-APR-1998;	97US-0083499P.
PR 29-APR-1998;	97US-0083559P.
PR 05-MAY-1998;	97US-0084366P.
PR 06-MAY-1998;	97US-0084414P.
PR 07-MAY-1998;	97US-0084639P.
PR 07-MAY-1998;	97US-0084640P.
PR 07-MAY-1998;	97US-0084643P.
PR 15-MAY-1998;	97US-0085579P.
PR 15-MAY-1998;	97US-0085580P.
PR 15-MAY-1998;	97US-0085582P.
PR 15-MAY-1998;	97US-0085700P.
PR 18-MAY-1998;	97US-0086023P.
PR 22-MAY-1998;	97US-0086392P.
PR 22-MAY-1998;	97US-0086486P.
PR 28-MAY-1998;	97US-0087098P.
PR 28-MAY-1998;	97US-0087208P.
PR 02-JUN-1998;	97US-0087609P.
PR 02-JUN-1998;	97US-0087759P.
PR 03-JUN-1998;	97US-0087827P.
PR 04-JUN-1998;	97US-0088025P.
PR 04-JUN-1998;	97US-0088028P.
PR 04-JUN-1998;	97US-0088029P.
PR 04-JUN-1998;	97US-0088033P.
PR 04-JUN-1998;	97US-0088326P.
PR 04-JUN-1998;	97US-0088367P.
PR 05-JUN-1998;	97US-0088202P.
PR 05-JUN-1998;	97US-0088212P.
PR 05-JUN-1998;	97US-0088217P.
PR 09-JUN-1998;	97US-0088655P.
PR 10-JUN-1998;	97US-0088722P.
PR 10-JUN-1998;	97US-0088738P.
PR 10-JUN-1998;	97US-0088740P.
PR 10-JUN-1998;	97US-0088811P.
PR 10-JUN-1998;	97US-0088824P.
PR 10-JUN-1998;	97US-0088825P.

```
PR 10-JUN-1998; 98US-00888252P.
PR 11-JUN-1998; 98US-00888612P.
PR 11-JUN-1998; 98US-00888632P.
PR 11-JUN-1998; 98US-00888762P.
PR 12-JUN-1998; 98US-00890902P.
PR 12-JUN-1998; 98US-00891052P.
PR 16-JUN-1998; 98US-00895112P.
PR 16-JUN-1998; 98US-00895142P.
PR 17-JUN-1998; 98US-00895382P.
PR 17-JUN-1998; 98US-00895592P.
PR 17-JUN-1998; 98US-00895652P.
PR 18-JUN-1998; 98US-00899082P.
PR 19-JUN-1998; 98US-00899552P.
PR 22-JUN-1998; 98US-00902462P.
PR 22-JUN-1998; 98US-00902522P.
PR 22-JUN-1998; 98US-00902532P.
PR 24-JUN-1998; 98US-00904232P.
PR 24-JUN-1998; 98US-00904352P.
PR 24-JUN-1998; 98US-00904422P.
PR 24-JUN-1998; 98US-00905352P.
PR 24-JUN-1998; 98US-00905462P.
PR 25-JUN-1998; 98US-00905402P.
PR 25-JUN-1998; 98US-00906752P.
PR 25-JUN-1998; 98US-00906782P.
PR 25-JUN-1998; 98US-00906882P.
PR 25-JUN-1998; 98US-00906902P.
PR 25-JUN-1998; 98US-00906942P.
PR 25-JUN-1998; 98US-00906952P.
PR 25-JUN-1998; 98US-00906962P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-00308622P.
PR 26-JUN-1998; 98US-00308632P.
PR 26-JUN-1998; 98US-00308642P.
PR 01-JUL-1998; 98US-00913592P.
PR 01-JUL-1998; 98US-00915442P.
PR 02-JUL-1998; 98US-00914782P.
PR 02-JUL-1998; 98US-00914862P.
PR 02-JUL-1998; 98US-00915262P.
PR 02-JUL-1998; 98US-00916232P.
PR 02-JUL-1998; 98US-00916322P.
PR 02-JUL-1998; 98US-00940062P.
PR 02-JUL-1998; 98US-00952822P.
PR 10-AUG-1998; 98US-00955982P.
PR 10-AUG-1998; 98US-00960122P.
PR 17-AUG-1998; 98US-00967572P.
PR 17-AUG-1998; 98US-00967662P.
PR 17-AUG-1998; 98US-00968672P.
PR 17-AUG-1998; 98US-00968812P.
PR 17-AUG-1998; 98US-00968872P.
PR 18-AUG-1998; 98US-00969492P.
PR 18-AUG-1998; 98US-00969592P.
PR 26-AUG-1998; 98US-00970222P.
PR 26-AUG-1998; 98US-00979522P.
PR 26-AUG-1998; 98US-00979542P.
PR 26-AUG-1998; 98US-00979552P.
PR 26-AUG-1998; 98US-00979712P.
PR 26-AUG-1998; 98US-00979742P.
PR 26-AUG-1998; 98US-00980142P.
PR 01-SEP-1998; 98US-00987162P.
PR 01-SEP-1998; 98US-00987232P.
PR 02-SEP-1998; 98US-00988032P.
PR 02-SEP-1998; 98US-00988212P.
PR 02-SEP-1998; 98US-00988432P.
PR 09-SEP-1998; 98US-00996022P.
PR 10-SEP-1998; 98US-00997412P.
PR 10-SEP-1998; 98US-00997542P.
PR 10-SEP-1998; 98US-00997632P.
PR 10-SEP-1998; 98US-00998122P.
PR 15-SEP-1998; 98US-01003882P.
PR 16-SEP-1998; 98US-01006622P.
PR 16-SEP-1998; 98US-01006642P.
PR 16-SEP-1998; 98US-01017512P.
PR 16-SEP-1998; 98WO-US019330.

PR 17-SEP-1998; 98US-01006832P.
PR 17-SEP-1998; 98US-01006842P.
PR 17-SEP-1998; 98US-01009192P.
PR 17-SEP-1998; 98US-01009302P.
PR 18-SEP-1998; 98US-01008492P.
PR 18-SEP-1998; 98US-01010142P.
PR 18-SEP-1998; 98US-01010682P.
PR 23-SEP-1998; 98US-01014712P.
PR 23-SEP-1998; 98US-01014722P.
PR 23-SEP-1998; 98US-01014752P.
PR 23-SEP-1998; 98US-01014772P.
PR 24-SEP-1998; 98US-01017382P.
PR 24-SEP-1998; 98US-01017392P.
PR 24-SEP-1998; 98US-01017432P.
PR 25-SEP-1998; 98US-01019222P.
PR 29-SEP-1998; 98US-01022072P.
PR 29-SEP-1998; 98US-01022402P.
PR 29-SEP-1998; 98US-01023302P.
PR 29-SEP-1998; 98US-01023312P.
PR 30-SEP-1998; 98US-01024872P.
PR 30-SEP-1998; 98US-01025702P.
PR 30-SEP-1998; 98US-01025712P.
PR 01-OCT-1998; 98US-01026842P.
PR 01-OCT-1998; 98US-01026872P.
PR 02-OCT-1998; 98US-01029652P.
PR 06-OCT-1998; 98US-01032582P.
PR 06-OCT-1998; 98US-01034492P.
PR 07-OCT-1998; 98US-00168978.

Query Match: 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGFLGEGVKEAKNSITDSQMDVVEVYITD 60
DB 1 MEGESTSAVLGSGFVLGALAFQHLNTDSDTEGFLGEGVKEAKNSITDSQMDVVEVYITD 60
QY 61 IQYIPCYQLFSPYNSGGEVNEQALKILSNVKNVGVYKPRRSDQIMTFRLLHKN 120
DB 61 IQYIPCYQLFSPYNSGGEVNEQALKILSNVKNVGVYKPRRSDQIMTFRLLHKN 120
QY 121 LQEHFNSQDLVFLLLTPSIITSCSHRLEHSLYKPKGLFHRVPLVWLVANLQMSQLGYK 180
DB 121 LQEHFNSQDLVFLLLTPSIITSCSHRLEHSLYKPKGLFHRVPLVWLVANLQMSQLGYK 180
QY 181 TVSGSCMSTGFSRAVQTHSKPFEDGSLKEVHKINEMVYASLOEIKSICKKVEDEQAV 240
DB 181 TVSGSCMSTGFSRAVQTHSKPFEDGSLKEVHKINEMVYASLOEIKSICKKVEDEQAV 240
QY 241 DKLVKDVNRLKRIEKRGAGQIAAREKNIQKDPQENIFLCOALRTFFPNSFFLHSCVMS 300
DB 241 DKLVKDVNRLKRIEKRGAGQIAAREKNIQKDPQENIFLCOALRTFFPNSFFLHSCVMS 300
QY 301 LKRRHVSKSCNNHLLDVVDNLTLMVHTDIPASPASTPQIIKHKALDLDNRQFKRS 360
DB 301 LKRRHVSKSCNNHLLDVVDNLTLMVHTDIPASPASTPQIIKHKALDLDNRQFKRS 360
QY 361 RLDDTDQKRSKANTGSSNQDKASKSSPETDDEIEKMGFGYYSRSPTF 409
DB 361 RLDDTDQKRSKANTGSSNQDKASKSSPETDDEIEKMGFGYYSRSPTF 409

RESULT 74
ABR60102
ID ABR60102 standard; protein; 409 AA.
XX
AC ABR60102;
XX
DT 28-JUL-2003 (first entry)
XX
DE Human secreted polypeptide PRO1013, SEQ ID NO:134.
XX
```

KW Human; PRO; secreted protein; transmembrane protein; TNF-alpha; extracellular domain; tumour necrosis factor-alpha; TNF-alpha; chondrocyte; proliferation; differentiation; cartilage disorder; bone disorder; arthritis; sports injury; cancer; tumour; diagnosis; adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix; liver; drug screening; transgenic animal; genetic analysis; antiarthritic; vulnery; gene therapy.

XX Homo sapiens.

OS US2003032137-A1.

PN 13-FEB-2003.

PD 02-JUL-2002; 2002US-00187745.

PF 18-SEP-1997; 97US-0059263P.

XX 18-SEP-1997; 97US-0059266P.

PR 17-OCT-1997; 97US-0062250P.

PR 21-OCT-1997; 97US-0063486P.

PR 24-OCT-1997; 97US-0063120P.

PR 24-OCT-1997; 97US-0063121P.

PR 28-OCT-1997; 97US-0063540P.

PR 28-OCT-1997; 97US-0063541P.

PR 28-OCT-1997; 97US-0063544P.

PR 28-OCT-1997; 97US-0063564P.

PR 31-OCT-1997; 97US-0063734P.

PR 31-OCT-1997; 97US-0063870P.

PR 31-OCT-1997; 97US-0064103P.

PR 13-NOV-1997; 97US-0065311P.

PR 21-NOV-1997; 97US-0066120P.

PR 24-NOV-1997; 97US-0066466P.

PR 24-NOV-1997; 97US-0066772P.

PR 11-DEC-1997; 97US-0069335P.

PR 12-DEC-1997; 97US-0069425P.

PR 17-DEC-1997; 97US-0069870P.

PR 18-DEC-1997; 97US-0068017P.

PR 10-MAR-1998; 98US-0077450P.

PR 11-MAR-1998; 98US-0077632P.

PR 11-MAR-1998; 98US-0077649P.

PR 20-MAR-1998; 98US-0078866P.

PR 20-MAR-1998; 98US-0078939P.

PR 27-MAR-1998; 98US-0079664P.

PR 27-MAR-1998; 98US-0079786P.

PR 31-MAR-1998; 98US-0080107P.

PR 31-MAR-1998; 98US-0080194P.

PR 01-APR-1998; 98US-0080327P.

PR 01-APR-1998; 98US-0080333P.

PR 08-APR-1998; 98US-0081049P.

PR 08-APR-1998; 98US-0081070P.

PR 09-APR-1998; 98US-0081195P.

PR 15-APR-1998; 98US-0081838P.

PR 21-APR-1998; 98US-0082568P.

PR 21-APR-1998; 98US-0082569P.

PR 22-APR-1998; 98US-0082704P.

PR 22-APR-1998; 98US-0082777P.

PR 28-APR-1998; 98US-0083322P.

PR 29-APR-1998; 98US-0083495P.

PR 29-APR-1998; 98US-0083496P.

PR 29-APR-1998; 98US-0083499P.

PR 29-APR-1998; 98US-0083559P.

PR 05-MAY-1998; 98US-0084366P.

PR 06-MAY-1998; 98US-0084414P.

PR 07-MAY-1998; 98US-0084639P.

PR 07-MAY-1998; 98US-0084643P.

PR 15-MAY-1998; 98US-0085579P.

PR 15-MAY-1998; 98US-0085580P.

PR 15-MAY-1998; 98US-0085582P.

PR 15-MAY-1998; 98US-0085700P.

PR 18-MAY-1998; 98US-0086043P.

PR 22-MAY-1998; 98US-0086392P.

PR 22-MAY-1998; 98US-0086486P.

PR 28-MAY-1998; 98US-0087098P.

PR 28-MAY-1998; 98US-0087208P.

PR 02-JUN-1998; 98US-0087609P.

PR 02-JUN-1998; 98US-0087759P.

PR 03-JUN-1998; 98US-0087827P.

PR 04-JUN-1998; 98US-0088025P.

PR 04-JUN-1998; 98US-0088028P.

PR 04-JUN-1998; 98US-0088029P.

PR 04-JUN-1998; 98US-0088033P.

PR 04-JUN-1998; 98US-0088326P.

PR 05-JUN-1998; 98US-0088167P.

PR 05-JUN-1998; 98US-0088202P.

PR 05-JUN-1998; 98US-0088212P.

PR 05-JUN-1998; 98US-0088217P.

PR 09-JUN-1998; 98US-0088655P.

PR 10-JUN-1998; 98US-0088722P.

PR 10-JUN-1998; 98US-0088738P.

PR 10-JUN-1998; 98US-0088740P.

PR 10-JUN-1998; 98US-0088811P.

PR 10-JUN-1998; 98US-0088824P.

PR 10-JUN-1998; 98US-0088825P.

PR 10-JUN-1998; 98US-0088826P.

PR 11-JUN-1998; 98US-0088861P.

PR 11-JUN-1998; 98US-0088863P.

PR 11-JUN-1998; 98US-0088876P.

PR 12-JUN-1998; 98US-0089090P.

PR 12-JUN-1998; 98US-0089105P.

PR 16-JUN-1998; 98US-0089512P.

PR 16-JUN-1998; 98US-0089514P.

PR 17-JUN-1998; 98US-0089538P.

PR 17-JUN-1998; 98US-0089539P.

PR 17-JUN-1998; 98US-0089653P.

PR 18-JUN-1998; 98US-0089908P.

PR 19-JUN-1998; 98US-0089952P.

PR 22-JUN-1998; 98US-0090246P.

PR 22-JUN-1998; 98US-0090252P.

PR 22-JUN-1998; 98US-0090254P.

PR 24-JUN-1998; 98US-0090429P.

PR 24-JUN-1998; 98US-0090435P.

PR 24-JUN-1998; 98US-0090444P.

PR 24-JUN-1998; 98US-0090461P.

PR 24-JUN-1998; 98US-0090535P.

PR 24-JUN-1998; 98US-0090540P.

PR 25-JUN-1998; 98US-0090676P.

PR 25-JUN-1998; 98US-0090678P.

PR 25-JUN-1998; 98US-0090688P.

PR 25-JUN-1998; 98US-0090690P.

PR 25-JUN-1998; 98US-0090694P.

PR 25-JUN-1998; 98US-0090695P.

PR 26-JUN-1998; 98US-0090966P.

PR 26-JUN-1998; 98US-00105413.

PR 26-JUN-1998; 98US-0090862P.

PR 26-JUN-1998; 98US-0090863P.

PR 26-JUN-1998; 98US-0091010P.

PR 01-JUL-1998; 98US-0091359P.

PR 01-JUL-1998; 98US-0091544P.

PR 02-JUL-1998; 98US-0091478P.

PR 02-JUL-1998; 98US-0091486P.

PR 02-JUL-1998; 98US-0091628P.

PR 02-JUL-1998; 98US-0091628P.

PR 02-JUL-1998; 98US-0091632P.

PR 02-JUL-1998; 98US-0091632P.

PR 04-JUL-1998; 98US-0094006P.

PR 04-AUG-1998; 98US-0095282P.

PR 10-AUG-1998; 98US-0095998P.

PR 10-AUG-1998; 98US-0096012P.

PR 17-AUG-1998; 98US-0096757P.

PR 17-AUG-1998; 98US-0096766P.

PR 17-AUG-1998; 98US-0096867P.

PR 17-AUG-1998; 98US-0096891P.

PR 17-AUG-1998; 98US-0096897P.

PR 18-AUG-1998; 98US-0096949P.

PR 18-AUG-1998; 98US-0096959P.

PR 18-AUG-1998; 98US-0097022P.



Db	301	LNKRHVSKSCNVNHHLDVDNLTLMVEHTDPEASPTFPQIIKHKALDLDLRWQFKES	409
Qy	361	RLLTQDKRKANTGSSNQDKASKGSPETDEIEKMGFGYRSPTF	409
Db	361	RLLTQDKRKANTGSSNQDKASKGSPETDEIEKMGFGYRSPTF	409
RESULT 75			
XX	ABU90970		
ID	ABU90970	standard; protein; 409 AA.	
XX	AC		
XX	AC	ABU90970;	
DT	14-JUL-2003	(first entry)	
XX	XX		
DE	DE	Human PRO polypeptide #11.	
XX	XX		
XX	XX	Human; PRO polypeptide; secreted protein; transmembrane protein; rectal;	
KW	KW	lung; stomach; oesophageal; skin; tumour; cancer; cytostatic.	
XX	OS		
XX	OS	Homo sapiens.	
XX	XX		
PN	PN	US2003018168-A1.	
XX	XX		
PD	PD	23-JAN-2003.	
XX	XX		
PF	PF	02-MAY-2002; 2002US-00063569.	
XX	XX		
PR	PR	30-DEC-1998; 98KR-00062142.	
PR	PR	08-MAR-1999; 99WO-US005028.	
PR	PR	14-MAY-1999; 99US-00311832.	
PR	PR	14-MAY-1999; 99WO-US010733.	
PR	PR	25-AUG-1999; 99US-00380137.	
PR	PR	25-AUG-1999; 99US-00380138.	
PR	PR	25-AUG-1999; 99US-00380139.	
PR	PR	25-AUG-1999; 99US-00380142.	
PR	PR	15-SEP-1999; 99US-00397342.	
PR	PR	18-OCT-1999; 99US-00403297.	
PR	PR	12-NOV-1999; 99US-00423844.	
PR	PR	30-DEC-1999; 99WO-US031274.	
PR	PR	18-FEB-2000; 2000WO-US004341.	
PR	PR	01-MAR-2000; 2000WO-US005601.	
PR	PR	02-MAR-2000; 2000WO-US005841.	
PR	PR	21-MAR-2000; 2000WO-US007532.	
PR	PR	22-MAY-2000; 2000WO-US014042.	
PR	PR	02-JUN-2000; 2000WO-US015264.	
PR	PR	22-AUG-2000; 2000US-00644848.	
PR	PR	24-AUG-2000; 2000WO-US023328.	
PR	PR	18-SEP-2000; 2000US-00664610.	
PR	PR	18-SEP-2000; 2000US-00665350.	
PR	PR	08-NOV-2000; 2000US-00709238.	
PR	PR	10-NOV-2000; 2000WO-US030873.	
PR	PR	01-DEC-2000; 2000WO-US032678.	
PR	PR	20-DEC-2000; 2000US-00747259.	
PR	PR	20-DEC-2000; 2000WO-US034956.	
PR	PR	28-FEB-2001; 2001WO-US006520.	
PR	PR	22-MAR-2001; 2001US-00816744.	
PR	PR	10-MAY-2001; 2001US-00854208.	
PR	PR	10-MAY-2001; 2001US-00854280.	
PR	PR	30-MAY-2001; 2001US-00870574.	
PR	PR	01-JUN-2001; 2001WO-US017800.	
PR	PR	05-JUN-2001; 2001US-00874503.	
PR	PR	29-JUN-2001; 2001US-00869599.	
PR	PR	18-JUL-2001; 2001US-00908827.	
PR	PR	06-DEC-2001; 2001US-00006867.	
XX	XX		
PA	PA	(GETH ) GENENTECH INC.	
XX	XX		
PI	PI	Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;	
PI	PI	Grimaldi JC, Gurney AL, Watanabe CK, Wood WI;	
XX	XX		
DR	DR	WPI; 2003-401699/38.	
DR	DR	N-PSDB; ACA91260.	

XX New isolated, secreted and transmembrane PRO polypeptide, useful for the  
PT diagnosis, prevention and treatment of rectal, lung, stomach, esophageal  
PT or skin cancers.  
XX  
XX Disclosure; Fig 22; 235pp; English.  
XX  
XX The present invention relates to the isolation of novel human PRO  
CC polypeptides, and the polynucleotide sequences encoding them. The PRO  
CC polypeptides are secreted and transmembrane proteins. The PRO polypeptide  
CC and polynucleotide sequences are useful for the diagnosis, prevention and  
CC treatment of rectal, lung, stomach, oesophageal or skin tumours, and/or  
CC cancers. The PRO polypeptides are also useful as molecular weight  
CC markers. The PRO polynucleotide sequences are useful for chromosome  
CC identification, hybridisation probes, and for screening libraries of  
CC human cDNA, genomic DNA or mRNA. They may also be used in gene therapy,  
CC particularly for replacing a defective gene. ABU90960-ABU91043 represent  
CC the human PRO polypeptides of the invention  
XX  
XX Sequence 409 AA;  
XX

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSFVLGALAFHLLTDSDTGSLGVEKGEAKNSITDSQMDDEVVVYTD 60  
Db 1 MEGESTSAVLGSFVLGALAFHLLTDSDTGSLGVEKGEAKNSITDSQMDDEVVVYTD 60

QY 61 IKQYTPCYQLFSFYNSGSEVNEQAKKILSNVKKNVGVYKFRHSDQIMTFRELLHK 120  
Db 61 IKQYTPCYQLFSFYNSGSEVNEQAKKILSNVKKNVGVYKFRHSDQIMTFRELLHK 120

QY 121 LQEHFSNQDLVFLLLTPSIITESCSTRHLHSHLYKPKQGLFHRVPLVWNLGMSQLG 180  
Db 121 LQEHFSNQDLVFLLLTPSIITESCSTRHLHSHLYKPKQGLFHRVPLVWNLGMSQLG 180

QY 181 TVSGSCMTGFSRAVQTHSSKFFPEDGSLKEVHKINEMVASLQEELEKSIKKVDESEAV 240  
Db 181 TVSGSCMTGFSRAVQTHSSKFFPEDGSLKEVHKINEMVASLQEELEKSIKKVDESEAV 240

QY 241 DKLVKDVNRLKRETEKRGAGIQAAREKNITQKQPOENIFLQALRTFFPNSFLHSCVMS 300  
Db 241 DKLVKDVNRLKRETEKRGAGIQAAREKNITQKQPOENIFLQALRTFFPNSFLHSCVMS 300

QY 301 LKNRHVSKSSCNYNHLLDVNDNLTLWVEHTDIPASPASTPQIIKHKALDLDLRWQFKRS 360  
Db 301 LKNRHVSKSSCNYNHLLDVNDNLTLWVEHTDIPASPASTPQIIKHKALDLDLRWQFKRS 360

QY 361 RLDDTQDKRSKANTGSSNQDKASQVSPETDEBIEKMKGFGEYSRSPTF 409  
Db 361 RLDDTQDKRSKANTGSSNQDKASQVSPETDEBIEKMKGFGEYSRSPTF 409

RESULT 76  
ABR67837  
ID ABR67837 standard; protein; 409 AA.  
XX  
XX ABR67837;  
XX  
XX 11-AUG-2003 (first entry)  
XX  
XX Human secreted polypeptide PRO1013, SEQ ID NO:134.  
XX  
XX Human; PRO; secreted protein; transmembrane protein;  
KW extracellular domain; tumour necrosis factor-alpha; TNF-alpha;  
KW chondrocyte proliferation; differentiation; cartilage disorder;  
KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;  
KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;  
KW liver; drug screening; transgenic animal; genetic analysis;  
KW antiarthritic; vulnery; gene therapy.  
XX  
XX Homo sapiens.  
OS

PR	04-JUN-1998	98US-00883266P
PR	05-JUN-1998	98US-00881673P
PR	05-JUN-1998	98US-00882032P
PR	05-JUN-1998	98US-00882122P
PR	05-JUN-1998	98US-0088217P
PR	09-JUN-1998	98US-00886558P
PR	10-JUN-1998	98US-00887222P
PR	10-JUN-1998	98US-0088738P
PR	10-JUN-1998	98US-0088740P
PR	10-JUN-1998	98US-0088811P
PR	10-JUN-1998	98US-0088824P
PR	10-JUN-1998	98US-0088825P
PR	10-JUN-1998	98US-0088826P
PR	11-JUN-1998	98US-0088861P
PR	11-JUN-1998	98US-0088863P
PR	11-JUN-1998	98US-0088875P
PR	12-JUN-1998	98US-0089090P
PR	12-JUN-1998	98US-0089103P
PR	16-JUN-1998	98US-00895112P
PR	16-JUN-1998	98US-00895114P
PR	16-JUN-1998	98US-0089538P
PR	17-JUN-1998	98US-0089559P
PR	17-JUN-1998	98US-0089653P
PR	18-JUN-1998	98US-0089508P
PR	19-JUN-1998	98US-0089592P
PR	24-JUN-1998	98US-0090248P
PR	24-JUN-1998	98US-0090252P
PR	22-JUN-1998	98US-0090254P
PR	22-JUN-1998	98US-0090423P
PR	24-JUN-1998	98US-0090435P
PR	24-JUN-1998	98US-0090444P
PR	24-JUN-1998	98US-0090461P
PR	24-JUN-1998	98US-0090535P
PR	24-JUN-1998	98US-0090540P
PR	25-JUN-1998	98US-0090676P
PR	25-JUN-1998	98US-0090678P
PR	25-JUN-1998	98US-0090688P
PR	25-JUN-1998	98US-0090690P
PR	25-JUN-1998	98US-0090694P
PR	25-JUN-1998	98US-0090695P
PR	25-JUN-1998	98US-0090696P
PR	26-JUN-1998	98US-00105413
PR	26-JUN-1998	98US-0090862P
PR	26-JUN-1998	98US-0090863P
PR	26-JUN-1998	98US-0090866P
PR	26-JUN-1998	98US-0091010P
PR	01-JUL-1998	98US-0091135P
PR	01-JUL-1998	98US-0091544P
PR	02-JUL-1998	98US-0091478P
PR	02-JUL-1998	98US-0091486P
PR	02-JUL-1998	98US-0091625P
PR	02-JUL-1998	98US-0091628P
PR	02-JUL-1998	98US-0091632P
PR	24-JUL-1998	98US-0091632P
PR	24-JUL-1998	98US-0094008P
PR	10-AUG-1998	98US-0095282P
PR	10-AUG-1998	98US-0095598P
PR	10-AUG-1998	98US-0096013P
PR	17-AUG-1998	98US-0096570P
PR	17-AUG-1998	98US-0096575P
PR	17-AUG-1998	98US-0096576P
PR	17-AUG-1998	98US-0096587P
PR	17-AUG-1998	98US-0096891P
PR	17-AUG-1998	98US-0096897P
PR	18-AUG-1998	98US-0096949P
PR	18-AUG-1998	98US-0096959P
PR	18-AUG-1998	98US-0097022P
PR	26-AUG-1998	98US-0097952P
PR	26-AUG-1998	98US-0097954P
PR	26-AUG-1998	98US-0097955P
PR	26-AUG-1998	98US-0097971P
PR	26-AUG-1998	98US-0097974P
PR	26-AUG-1998	98US-0098014P
PR	01-SEP-1998	98US-0098716P
PR	01-SEP-1998	98US-0098723P
PR	02-SEP-1998	98US-0098803P

PR	03-SEP-1998	98US-0098321P
PR	03-SEP-1998	98US-0098343P
PR	03-SEP-1998	98US-0098502P
PR	03-SEP-1998	98US-0098512P
PR	10-SEP-1998	98US-0099741P
PR	10-SEP-1998	98US-0099754P
PR	10-SEP-1998	98US-0099763P
PR	10-SEP-1998	98US-0099812P
PR	13-SEP-1998	98US-0100388P
PR	15-SEP-1998	98US-0100662P
PR	15-SEP-1998	98US-0100664P
PR	15-SEP-1998	98US-0100664P
PR	15-SEP-1998	98US-0101751P
PR	15-SEP-1998	98US-0101933P
PR	17-SEP-1998	98US-0100583P
PR	17-SEP-1998	98US-0100584P
PR	17-SEP-1998	98US-0100591P
PR	17-SEP-1998	98US-0100592P
PR	18-SEP-1998	98US-0100930P
PR	18-SEP-1998	98US-0100849P
PR	18-SEP-1998	98US-0101014P
PR	18-SEP-1998	98US-0101068P
PR	23-SEP-1998	98US-0101471P
PR	23-SEP-1998	98US-0101472P
PR	23-SEP-1998	98US-0101475P
PR	23-SEP-1998	98US-0101477P
PR	23-SEP-1998	98US-0101738P
PR	24-SEP-1998	98US-0101739P
PR	24-SEP-1998	98US-0101743P
PR	24-SEP-1998	98US-0101922P
PR	24-SEP-1998	98US-0101786P
PR	23-SEP-1998	98US-0103207P
PR	23-SEP-1998	98US-0103240P
PR	23-SEP-1998	98US-0103330P
PR	23-SEP-1998	98US-0103331P
PR	30-SEP-1998	98US-0103487P
PR	30-SEP-1998	98US-0103570P
PR	30-SEP-1998	98US-0103571P
PR	01-OCT-1998	98US-0103684P
PR	01-OCT-1998	98US-0103687P

Query Match  
100.0%; Score 409; DB 6; Length 409;

[illegible]

RESULT 77  
ABR65225

ID ABR65225 standard; protein; 409 AA.  
XX ABR65225;  
AC  
XX  
DT 28-JUL-2003 (first entry)  
XX  
DE Human secreted polypeptide PRO1013, SEQ ID NO:134.  
XX  
KW Human; PRO; secreted protein; transmembrane protein; TNF-alpha;  
KW extracellular domain; tumour necrosis factor-alpha; TNF-alpha;  
KW chondrocyte; proliferation; differentiation; cartilage disorder;  
KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;  
KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;  
KW liver; drug screening; transgenic animal; genetic analysis;  
KW antiarthritic; vulnery; gene therapy.  
XX  
OS Homo sapiens.  
XX  
PN US2003027268-A1.  
XX  
XX  
PD 06-FEB-2003.  
XX  
PF 18-JUN-2002; 2002US-00175740.  
XX  
XX 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062325P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069135P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088555P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 04-AUG-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095988P.  
PR 10-AUG-1998; 98US-0096012P.



PR	08-APR-1998;	98US-0081049P.	PR	25-JUN-1998;	98US-0090695P.
PR	08-APR-1998;	98US-0081070P.	PR	25-JUN-1998;	98US-0090696P.
PR	09-APR-1998;	98US-0081195P.	PR	26-JUN-1998;	98US-00105413.
PR	15-APR-1998;	98US-0081838P.	PR	26-JUN-1998;	98US-0090862P.
PR	21-APR-1998;	98US-0082568P.	PR	26-JUN-1998;	98US-0090863P.
PR	21-APR-1998;	98US-0082569P.	PR	26-JUN-1998;	98US-0091010P.
PR	22-APR-1998;	98US-0082704P.	PR	01-JUL-1998;	98US-0091359P.
PR	22-APR-1998;	98US-0082797P.	PR	01-JUL-1998;	98US-0091544P.
PR	28-APR-1998;	98US-0083322P.	PR	02-JUL-1998;	98US-0091478P.
PR	28-APR-1998;	98US-0083495P.	PR	02-JUL-1998;	98US-0091486P.
PR	23-APR-1998;	98US-0083496P.	PR	02-JUL-1998;	98US-0091626P.
PR	29-APR-1998;	98US-0083499P.	PR	02-JUL-1998;	98US-0091628P.
PR	29-APR-1998;	98US-0083559P.	PR	02-JUL-1998;	98US-0091632P.
PR	05-MAY-1998;	98US-0084366P.	PR	24-JUL-1998;	98US-0094006P.
PR	06-MAY-1998;	98US-0084414P.	PR	04-AUG-1998;	98US-0095282P.
PR	07-MAY-1998;	98US-0084639P.	PR	10-AUG-1998;	98US-0095998P.
PR	07-MAY-1998;	98US-0084640P.	PR	10-AUG-1998;	98US-0096012P.
PR	07-MAY-1998;	98US-0084643P.	PR	17-AUG-1998;	98US-0096757P.
PR	15-MAY-1998;	98US-0085579P.	PR	17-AUG-1998;	98US-0096766P.
PR	15-MAY-1998;	98US-0085580P.	PR	17-AUG-1998;	98US-0096867P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096891P.
PR	15-MAY-1998;	98US-0085700P.	PR	17-AUG-1998;	98US-0096897P.
PR	18-MAY-1998;	98US-0086023P.	PR	18-AUG-1998;	98US-0096949P.
PR	22-MAY-1998;	98US-0086392P.	PR	18-AUG-1998;	98US-0096959P.
PR	22-MAY-1998;	98US-0086486P.	PR	26-AUG-1998;	98US-0097022P.
PR	28-MAY-1998;	98US-0087098P.	PR	26-AUG-1998;	98US-0097522P.
PR	28-MAY-1998;	98US-0087208P.	PR	26-AUG-1998;	98US-0097954P.
PR	02-JUN-1998;	98US-0087609P.	PR	26-AUG-1998;	98US-0097955P.
PR	02-JUN-1998;	98US-0087759P.	PR	26-AUG-1998;	98US-0097971P.
PR	03-JUN-1998;	98US-0087827P.	PR	26-AUG-1998;	98US-0097974P.
PR	04-JUN-1998;	98US-0088025P.	PR	26-AUG-1998;	98US-0098014P.
PR	04-JUN-1998;	98US-0088028P.	PR	01-SEP-1998;	98US-0098716P.
PR	04-JUN-1998;	98US-0088029P.	PR	01-SEP-1998;	98US-0098723P.
PR	04-JUN-1998;	98US-0088033P.	PR	02-SEP-1998;	98US-0098803P.
PR	04-JUN-1998;	98US-0088326P.	PR	02-SEP-1998;	98US-0098821P.
PR	05-JUN-1998;	98US-0088167P.	PR	02-SEP-1998;	98US-0098843P.
PR	05-JUN-1998;	98US-0088202P.	PR	09-SEP-1998;	98US-0099602P.
PR	05-JUN-1998;	98US-0088212P.	PR	10-SEP-1998;	98US-0099741P.
PR	08-JUN-1998;	98US-0088217P.	PR	10-SEP-1998;	98US-0099754P.
PR	09-JUN-1998;	98US-0088655P.	PR	10-SEP-1998;	98US-0099763P.
PR	10-JUN-1998;	98US-0088722P.	PR	10-SEP-1998;	98US-0099812P.
PR	10-JUN-1998;	98US-0088738P.	PR	15-SEP-1998;	98US-0100388P.
PR	10-JUN-1998;	98US-0088740P.	PR	16-SEP-1998;	98US-0100662P.
PR	10-JUN-1998;	98US-0088811P.	PR	16-SEP-1998;	98US-0100664P.
PR	10-JUN-1998;	98US-0088824P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088825P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088826P.	PR	17-SEP-1998;	98US-0100683P.
PR	10-JUN-1998;	98US-0088861P.	PR	17-SEP-1998;	98US-0100684P.
PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100919P.
PR	11-JUN-1998;	98US-0088876P.	PR	17-SEP-1998;	98US-0100930P.
PR	12-JUN-1998;	98US-0089090P.	PR	18-SEP-1998;	98US-0100849P.
PR	12-JUN-1998;	98US-0089105P.	PR	18-SEP-1998;	98US-0101014P.
PR	16-JUN-1998;	98US-0089312P.	PR	18-SEP-1998;	98US-0101068P.
PR	16-JUN-1998;	98US-0089514P.	PR	23-SEP-1998;	98US-0101471P.
PR	17-JUN-1998;	98US-0089538P.	PR	23-SEP-1998;	98US-0101472P.
PR	17-JUN-1998;	98US-0089598P.	PR	23-SEP-1998;	98US-0101475P.
PR	17-JUN-1998;	98US-0089653P.	PR	23-SEP-1998;	98US-0101477P.
PR	18-JUN-1998;	98US-0089908P.	PR	24-SEP-1998;	98US-0101738P.
PR	19-JUN-1998;	98US-0089922P.	PR	24-SEP-1998;	98US-0101739P.
PR	22-JUN-1998;	98US-0090246P.	PR	24-SEP-1998;	98US-0101743P.
PR	22-JUN-1998;	98US-0090252P.	PR	24-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090254P.	PR	25-SEP-1998;	98US-0101786P.
PR	24-JUN-1998;	98US-0090429P.	PR	29-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090435P.	PR	29-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090444P.	PR	29-SEP-1998;	98US-0102330P.
PR	24-JUN-1998;	98US-0090451P.	PR	29-SEP-1998;	98US-0102331P.
PR	24-JUN-1998;	98US-0090535P.	PR	30-SEP-1998;	98US-0102487P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102570P.
PR	25-JUN-1998;	98US-0090676P.	PR	30-SEP-1998;	98US-0102571P.
PR	25-JUN-1998;	98US-0090678P.	PR	01-OCT-1998;	98US-0102684P.
PR	25-JUN-1998;	98US-0090688P.	PR	01-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090690P.			
PR	25-JUN-1998;	98US-0090694P.			

Query Match 100.0%; Score 409; DB 6; Length 409;

Best Local Similarity 100.0%; Pred. No. 0;		Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
QY	1	MEGETSAVLSGFLGALAFQHLNLTDSFTEGLGEVKGAKNSITDSQMDDEVVYTIID	60
DB	1	MEGETSAVLSGFLGALAFQHLNLTDSFTEGLGEVKGAKNSITDSQMDDEVVYTIID	60
QY	61	IQKIYPCYQLFSFYNSGSEVNEQALKILSNVKNVGVGYKFRHRSQIMTFRERLLHKN	120
DB	61	IQKIYPCYQLFSFYNSGSEVNEQALKILSNVKNVGVGYKFRHRSQIMTFRERLLHKN	120
QY	121	LOEHFSNODLVFLLLTPSIITESCSTHLSLYKPKGLFHRVPLVNVANLGMSEQLGYK	180
DB	121	LOEHFSNODLVFLLLTPSIITESCSTHLSLYKPKGLFHRVPLVNVANLGMSEQLGYK	180
QY	181	TVSGSCMSTGFRVQVTHSSKFEFEDGSLKEVHKINENYASIQBELKSIKCKVEDSEQAV	240
DB	181	TVSGSCMSTGFRVQVTHSSKFEFEDGSLKEVHKINENYASIQBELKSIKCKVEDSEQAV	240
QY	241	DKLVKDVNRLKEIEIKRGAQTOAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
DB	241	DKLVKDVNRLKEIEIKRGAQTOAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
QY	301	LKNRVKSSCNVHHLDVVDNLTLWVHTDIPEASPASTPQIIKHKALDLDLDRWQPKRS	360
DB	301	LKNRVKSSCNVHHLDVVDNLTLWVHTDIPEASPASTPQIIKHKALDLDLDRWQPKRS	360
QY	361	RLLDTDKSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF	409
DB	361	RLLDTDKSKANTGSSNQDKASKMSSPETDEIEKMKGFGEYSRSPTF	409
RESULT 79			
ABR71859			
ID	ABR71859 standard; protein; 409 AA.		
AC	ABR71859;		
XX	22-AUG-2003 (first entry)		
DT	Human secreted polypeptide PRO1013, SEQ ID NO:134.		
DE	Human; PRO; secreted protein; transmembrane protein;		
KW	extracellular domain; tumour necrosis factor-alpha; TNF-alpha;		
KW	chondrocyte; proliferation; differentiation; cartilage disorder;		
KW	bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;		
KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;		
KW	liver; drug screening; transgenic animal; genetic analysis;		
KW	antiarthritic; vulnery; gene therapy.		
OS	Homo sapiens.		
XX	US2003032135-A1.		
XX	13-FEB-2003.		
XX	01-JUL-2002; 2002US-00187594.		
XX	26-JUN-1998; 98US-00105413.		
PR	15-SEP-1998; 98WO-US019330.		
PR	07-OCT-1998; 98US-00168978.		
PR	07-OCT-1998; 98WO-US021141.		
PR	06-NOV-1998; 98US-00187368.		
PR	01-DEC-1998; 98WO-US025108.		
PR	07-DEC-1998; 98US-00202054.		
PR	03-MAR-1999; 99US-00254311.		
PR	08-MAR-1999; 99WO-US008028.		
PR	14-MAY-1999; 99US-00311832.		
PR	14-MAY-1999; 99WO-US010733.		
PR	02-JUN-1999; 99WO-US012252.		
PR	25-AUG-1999; 99US-00380137.		
PR	25-AUG-1999; 99US-00380138.		
PR	25-AUG-1999; 99US-00380139.		
PR	25-AUG-1999; 99US-00380140.		
PR	25-AUG-1999; 99WO-US020111.		
PR	15-SEP-1999; 99WO-US021090.		
PR	18-OCT-1999; 99US-00403297.		
PR	12-NOV-1999; 99US-00423844.		
PR	01-DEC-1999; 99WO-US028301.		
PR	02-DEC-1999; 99WO-US028551.		
PR	30-DEC-1999; 99WO-US031274.		
PR	05-JAN-2000; 2000WO-US000219.		
PR	18-FEB-2000; 2000WO-US004341.		
PR	18-FEB-2000; 2000WO-US004342.		
PR	24-FEB-2000; 2000WO-US004414.		
PR	24-FEB-2000; 2000WO-US005004.		
PR	01-MAR-2000; 2000WO-US005601.		
PR	02-MAR-2000; 2000WO-US005841.		
PR	15-MAR-2000; 2000WO-US006884.		
PR	30-MAR-2000; 2000WO-US008439.		
PR	17-MAY-2000; 2000WO-US013705.		
PR	22-MAY-2000; 2000WO-US014042.		
PR	30-MAY-2000; 2000WO-US014941.		
PR	02-JUN-2000; 2000WO-US015264.		
PR	28-JUL-2000; 2000WO-US020710.		
PR	22-AUG-2000; 2000US-00644848.		
PR	24-AUG-2000; 2000WO-US023328.		
PR	18-SEP-2000; 2000US-00664610.		
PR	18-SEP-2000; 2000US-00665350.		
PR	08-NOV-2000; 2000US-00709238.		
PR	08-NOV-2000; 2000WO-US030952.		
PR	01-DEC-2000; 2000WO-US032678.		
PR	20-DEC-2000; 2000US-00747259.		
PR	20-DEC-2000; 2000WO-US034956.		
PR	28-FEB-2001; 2001WO-US006520.		
PR	22-MAR-2001; 2001US-00816744.		
PR	10-MAY-2001; 2001US-00854208.		
PR	10-MAY-2001; 2001US-00854280.		
PR	25-MAY-2001; 2001US-00865028.		
PR	01-JUN-2001; 2001WO-US017800.		
PR	05-JUN-2001; 2001US-00874503.		
PR	20-JUN-2001; 2001WO-US019692.		
PR	29-JUN-2001; 2001WO-US021066.		
PR	09-JUL-2001; 2001WO-US021735.		
PR	18-JUL-2001; 2001US-00908827.		
PR	30-JUL-2001; 2001US-00918585.		
PR	06-AUG-2001; 2001US-00924419.		
PR	13-AUG-2001; 2001US-00929404.		
PR	16-AUG-2001; 2001US-00931836.		
PR	28-AUG-2001; 2001US-00941992.		
PR	29-AUG-2001; 2001WO-US027099.		
PR	04-SEP-2001; 2001US-00946374.		
PR	15-JAN-2002; 2002US-00052586.		
XX	(GETH ) GENENTECH INC.		
XX	Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;		
XX	Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;		
XX	WPI; 2003-466225/44.		
DR	N-PSDB; ACC92902.		
XX	New secreted and transmembrane PRO polypeptides and nucleic acids, useful		
PT	in gene therapy, or for preparing a medicament for treating a condition		
PT	that is responsive to the PRO polypeptide or anti-PRO antibody.		
XX	Claim 11; Fig 134; 707pp; English.		
PS	The invention relates to human PRO secreted/transmembrane polypeptides		
XX	(ABR71793-ABR72097) and nucleic acids encoding them (ACC92836-ACC93140).		
CC	The invention also relates to sequences at least 80% identical to the PRO		
CC	nucleic acid and polypeptide sequences of the invention, recombinant		
CC	vectors and host cells comprising a PRO nucleic acid, a method for the		
CC	recombinant production of a PRO polypeptide, antibodies against a PRO		
CC	polypeptide, and fusion proteins comprising a PRO polypeptide. Nucleic		
CC	acids encoding PRO polypeptides of the invention were initially		

CC identified via homology screening using consensus sequences based on the  
CC extracellular domain sequences from known secreted proteins. Human cDNA  
CC libraries containing sequences of interest were identified using  
CC oligonucleotides based on the consensus sequences, and cDNA clones were  
CC isolated and characterised. The PRO polypeptides are useful for  
CC stimulating release of tumour necrosis factor-alpha (TNF-alpha) from  
CC human blood and may thus be used in the treatment of conditions in which  
CC enhanced TNF-alpha release would be beneficial. They are also useful for  
CC stimulating the proliferation or differentiation of chondrocytes and as  
CC such may be used in the treatment of various bone and/or cartilage  
CC disorders such as arthritis and sports injuries. The PRO polypeptides may  
CC be used in a method for detecting the presence of a tumour (e.g., an  
CC adrenal tumour, lung tumour, colon tumour, breast tumour, prostate  
CC tumour, rectal tumour, cervical tumour or liver tumour) in a mammal. This  
CC method involves comparing the level of expression of the PRO polypeptide  
CC in test and control samples, where a higher level of expression of PRO  
CC polypeptide in the test sample as compared to the control sample is  
CC indicative of the presence of a tumour. The PRO polypeptides are  
CC additionally useful for in drug screening to identify agonists and  
CC antagonists of PRO polypeptides. PRO nucleic acids are useful as  
CC hybridisation probes (for isolation of cDNA molecules), in chromosome and  
CC gene mapping, in the generation of antisense RNA and DNA and in gene  
CC therapy. The nucleic acids can also be used for mapping genes encoding  
CC PRO polypeptides, for genetic analysis of individuals with genetic  
CC disorders, and for generating either transgenic animals or knock-out  
CC animals which are useful in the development and screening of  
CC therapeutically useful compounds. Sequences ABR71793-ABR72097 represent  
CC the human PRO secreted/transmembrane polypeptides of the invention. Note:  
CC The sequence data for this patent is also available in electronic format  
CC from USPTO at [seqdata.uspto.gov/sequence.html](http://seqdata.uspto.gov/sequence.html)

XX Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGVILGALAFQHLNTSDTEGLGEVKGAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGSGVILGALAFQHLNTSDTEGLGEVKGAKNSITDSQMDVVEVYITD 60

QY 61 IQKTYPCQLPFGFNSSEVNEQALKILSNVKNVGVGYFRHSDQIMTFRERLLHKN 120  
Db 61 IQKTYPCQLPFGFNSSEVNEQALKILSNVKNVGVGYFRHSDQIMTFRERLLHKN 120

QY 121 LQEHFSNODLVFLLLTPSIITESCSTRHLSLYKPKGLFHRVPLVAVNLGMSEQLGYK 180  
Db 121 LQEHFSNODLVFLLLTPSIITESCSTRHLSLYKPKGLFHRVPLVAVNLGMSEQLGYK 180

QY 181 TVSGSCMTGFSRAVOTHSKPFEEGSGIKVHKINEMVYASIQBELSKICKKVEDSQAV 240  
Db 181 TVSGSCMTGFSRAVOTHSKPFEEGSGIKVHKINEMVYASIQBELSKICKKVEDSQAV 240

QY 241 DKLVDVNLRLKEIEKRRGAQIQAAAREKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300  
Db 241 DKLVDVNLRLKEIEKRRGAQIQAAAREKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300

QY 301 LKRVHVSCKSCYNHHLVDVNLTLVVEHTDIPASPASTQIILKHKALDLDLDRQPKRS 360  
Db 301 LKRVHVSCKSCYNHHLVDVNLTLVVEHTDIPASPASTQIILKHKALDLDLDRQPKRS 360

QY 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGGEYSRPTTF 409  
Db 361 RLDDTQDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGGEYSRPTTF 409

RESULT 80

ABU59229

ID ABU59229 standard; protein; 409 AA.

XX

AC ABU59229;

XX

DT 22-APR-2003 (first entry)

XX DE Human secreted/transmembrane protein, #59.  
XX KW Human; PRO; secreted; transmembrane; pharmaceutical; diagnostic;  
XX KW biosensor; bio-reactor; tumour; therapeutic; gene therapy;  
KW tumour-associated antigenic target; TAT; ADAPT;  
KW antibody-dependent enzyme mediated prodrug therapy; cytostatic.  
XX OS Homo sapiens.  
XX PN US2003027162-A1.  
XX PD 06-FEB-2003.  
XX PP 15-NOV-2001; 2001US-00997428.  
XX PR 16-JUN-1997; 97US-0049787P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 05-NOV-1997; 97WO-US020069.  
PR 12-NOV-1997; 97US-0065186P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 24-NOV-1997; 97US-0066770P.  
PR 25-FEB-1998; 98US-0075345P.  
PR 28-MAR-1998; 98US-0078910P.  
PR 28-APR-1998; 98US-0083322P.  
PR 07-MAY-1998; 98US-0084600P.  
PR 28-MAY-1998; 98US-0087106P.  
PR 02-JUN-1998; 98US-0087607P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088021P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088026P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088030P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 08-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088734P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088742P.  
PR 10-JUN-1998; 98US-0088810P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088858P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089440P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089532P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089599P.  
PR 17-JUN-1998; 98US-0089600P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089801P.  
PR 18-JUN-1998; 98US-0089907P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089947P.  
PR 19-JUN-1998; 98US-0089948P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 23-JUN-1998; 98US-0090349P.



PR	23-JUN-1998;	98US-00903555P.	PR	26-AUG-1998;	98US-0098014P.	Query Match	100.0%;	Score 409;	DB 6;	Length 409;
PR	24-JUN-1998;	98US-0090429P.	PR	31-AUG-1998;	98US-0098525P.	Best Local Similarity	100.0%;	Pred. No. 0;		
PR	24-JUN-1998;	98US-0090431P.	PR	16-SEP-1998;	98US-0100634P.	Matches 409;	Conservative	0;	Mismatches	0;
PR	24-JUN-1998;	98US-0090433P.	PR	16-SEP-1998;	98US-0100634P.					
PR	24-JUN-1998;	98US-0090444P.	PR	17-SEP-1998;	98US-0100858P.					
PR	24-JUN-1998;	98US-0090445P.	PR	17-SEP-1998;	98US-0100858P.					
PR	24-JUN-1998;	98US-0090472P.	PR	07-OCT-1998;	98US-0100858P.					
PR	24-JUN-1998;	98US-0090535P.	PR	01-DEC-1998;	98US-0100858P.					
PR	24-JUN-1998;	98US-0090540P.	PR	22-DEC-1998;	98US-0113296P.					
PR	24-JUN-1998;	98US-0090540P.	PR	05-JAN-1999;	98US-0113296P.					
PR	24-JUN-1998;	98US-0090542P.	PR	08-MAR-1999;	98US-0123957P.					
PR	24-JUN-1998;	98US-0090557P.	PR	12-MAR-1999;	98US-0123957P.					
PR	25-JUN-1998;	98US-0090676P.	PR	02-JUN-1999;	98US-0123957P.					
PR	25-JUN-1998;	98US-0090678P.	PR	23-JUN-1999;	98US-0141037P.					
PR	25-JUN-1998;	98US-0090690P.	PR	07-JUL-1999;	98US-0143048P.					
PR	25-JUN-1998;	98US-0090694P.	PR	20-JUL-1999;	98US-0144758P.					
PR	25-JUN-1998;	98US-0090695P.	PR	26-JUL-1999;	98US-0145698P.					
PR	25-JUN-1998;	98US-0090696P.	PR	28-JUL-1999;	98US-0146222P.					
PR	26-JUN-1998;	98US-0090862P.	PR	17-AUG-1999;	98US-0149396P.					
PR	26-JUN-1998;	98US-0090863P.	PR	15-SEP-1999;	98US-0149396P.					
PR	01-JUL-1998;	98US-0091360P.	PR	15-SEP-1999;	98US-0158663P.					
PR	01-JUL-1998;	98US-0091544P.	PR	08-OCT-1999;	98US-0158663P.					
PR	02-JUL-1998;	98US-0091478P.	PR	30-NOV-1999;	98US-0158663P.					
PR	02-JUL-1998;	98US-0091519P.	PR	01-DEC-1999;	98US-0158663P.					
PR	02-JUL-1998;	98US-0091626P.	PR	01-DEC-1999;	98US-0158663P.					
PR	02-JUL-1998;	98US-0091628P.	PR	16-DEC-1999;	98US-0158663P.					
PR	02-JUL-1998;	98US-0091633P.	PR	20-DEC-1999;	98US-0158663P.					
PR	02-JUL-1998;	98US-0091646P.	PR	05-JAN-2000;	98US-0158663P.					
PR	07-JUL-1998;	98US-0091673P.	PR	08-JAN-2000;	98US-0158663P.					
PR	07-JUL-1998;	98US-0091978P.	PR	11-FEB-2000;	98US-0158663P.					
PR	09-JUL-1998;	98US-0091982P.	PR	18-FEB-2000;	98US-0158663P.					
PR	09-JUL-1998;	98US-0092182P.	PR	22-FEB-2000;	98US-0158663P.					
PR	10-JUL-1998;	98US-0092472P.	PR	24-FEB-2000;	98US-0158663P.					
PR	20-JUL-1998;	98US-0093339P.	PR	24-FEB-2000;	98US-0158663P.					
PR	30-JUL-1998;	98US-0094651P.	PR	02-MAR-2000;	98US-0158663P.					
PR	04-AUG-1998;	98US-0095282P.	PR	10-MAR-2000;	98US-0158663P.					
PR	04-AUG-1998;	98US-0095285P.	PR	15-MAR-2000;	98US-0158663P.					
PR	04-AUG-1998;	98US-0095301P.	PR	30-MAR-2000;	98US-0158663P.					
PR	04-AUG-1998;	98US-0095318P.	PR	15-MAY-2000;	98US-0158663P.					
PR	04-AUG-1998;	98US-0095321P.	PR	17-MAY-2000;	98US-0158663P.					
PR	04-AUG-1998;	98US-0095325P.	PR	22-MAY-2000;	98US-0158663P.					
PR	10-AUG-1998;	98US-0095916P.	PR	30-MAY-2000;	98US-0158663P.					
PR	10-AUG-1998;	98US-0095929P.	PR	02-JUN-2000;	98US-0158663P.					
PR	11-AUG-1998;	98US-0096012P.	PR	23-JUN-2000;	98US-0158663P.					
PR	11-AUG-1998;	98US-0096143P.	PR	28-JUL-2000;	98US-0158663P.					
PR	11-AUG-1998;	98US-0096146P.	PR	11-AUG-2000;	98US-0158663P.					
PR	12-AUG-1998;	98US-0096329P.	PR	23-AUG-2000;	98US-0158663P.					
PR	17-AUG-1998;	98US-0096757P.	PR	24-AUG-2000;	98US-0158663P.					
PR	17-AUG-1998;	98US-0096766P.	PR							
PR	17-AUG-1998;	98US-0096768P.	PR							
PR	17-AUG-1998;	98US-0096773P.	PR							
PR	17-AUG-1998;	98US-0096791P.	PR							
PR	17-AUG-1998;	98US-0096867P.	PR							
PR	17-AUG-1998;	98US-0096891P.	PR							
PR	17-AUG-1998;	98US-0096894P.	PR							
PR	17-AUG-1998;	98US-0096895P.	PR							
PR	17-AUG-1998;	98US-0096897P.	PR							
PR	18-AUG-1998;	98US-0096949P.	PR							
PR	18-AUG-1998;	98US-0096950P.	PR							
PR	18-AUG-1998;	98US-0096959P.	PR							
PR	18-AUG-1998;	98US-0096960P.	PR							
PR	18-AUG-1998;	98US-0097022P.	PR							
PR	19-AUG-1998;	98US-0097141P.	PR							
PR	20-AUG-1998;	98US-0097218P.	PR							
PR	24-AUG-1998;	98US-0097661P.	PR							
PR	26-AUG-1998;	98US-0097952P.	PR							
PR	26-AUG-1998;	98US-0097954P.	PR							
PR	26-AUG-1998;	98US-0097955P.	PR							
PR	26-AUG-1998;	98US-0097971P.	PR							
PR	26-AUG-1998;	98US-0097974P.	PR							
PR	26-AUG-1998;	98US-0097978P.	PR							
PR	26-AUG-1998;	98US-0097979P.	PR							
PR	26-AUG-1998;	98US-0097986P.	PR							
PR			Qy	1	MEGESTSAVLGGFVLGALAFQHLNTDSDTEGFLGVEYKGAKNISITDSQMDDEVVYTTID 60					
			Db	1	MEGESTSAVLGGFVLGALAFQHLNTDSDTEGFLGVEYKGAKNISITDSQMDDEVVYTTID 60					
			Qy	61	IQKIPYCYQLFSPFNSGGEVNEQALKILSNVKNVGVGWYKPRHSDQIMTFERLLHKN 120					
			Db	61	IQKIPYCYQLFSPFNSGGEVNEQALKILSNVKNVGVGWYKPRHSDQIMTFERLLHKN 120					
			Qy	121	LOEHFSNQDLVFLLLTPSIITSCSTHRLSHSLYKPKQGLFHRVPLVYANLGSQQLGYK 180					
			Db	121	LOEHFSNQDLVFLLLTPSIITSCSTHRLSHSLYKPKQGLFHRVPLVYANLGSQQLGYK 180					
			Qy	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMIASLOBELKSI CKKVEDSQAV 240					
			Db	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMIASLOBELKSI CKKVEDSQAV 240					
			Qy	241	DKLVKDVNRLKREIEKRGGAQIOAAREKNIQKQPOENIFLCQALRTFFPNSSEFLHSCVMS 300					
			Db	241	DKLVKDVNRLKREIEKRGGAQIOAAREKNIQKQPOENIFLCQALRTFFPNSSEFLHSCVMS 300					

QY 301 LKNRHVSKSCNHNHLDVVDNLTLMVHTDIPASPASTPOLIKHKALDLDLRQFKRS 360  
Db 301 LKNRHVSKSCNHNHLDVVDNLTLMVHTDIPASPASTPOLIKHKALDLDLRQFKRS 360  
QY 361 RLIDTDQKSKANTGSSNQDKASKMSSPETDDEIEKMKGFGEYSRPTF 409  
Db 361 RLIDTDQKSKANTGSSNQDKASKMSSPETDDEIEKMKGFGEYSRPTF 409

RESULT 81  
ABU85339  
ID ABU85339 standard; protein; 409 AA.  
XX  
AC ABU85339;  
DT 02-JUL-2003 (first entry)  
XX  
DE Human PRO polypeptide #67.  
XX  
KW Human; PRO; secreted polypeptide; transmembrane polypeptide; cancer;  
KW adrenal tumour; lung tumour; colon tumour; breast tumour;  
KW prostate tumour; rectal tumour; cervical tumour; liver tumour; TNF-alpha;  
KW tumour necrosis factor-alpha; chondrocyte cell.  
XX  
OS Homo sapiens.  
XX  
PN US2003022285-A1.  
XX  
PD 30-JAN-2003.  
XX  
PF 19-JUN-2002; 2002US-00175752.  
XX  
PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078586P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.

PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088555P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.



PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084439P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085799P.  
PR 15-MAY-1998; 98US-0085800P.  
PR 15-MAY-1998; 98US-0085882P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 08-JUN-1998; 98US-0088212P.  
PR 08-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0088909P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-0090841P.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 04-AUG-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98US-0101930P.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.

```
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLSEFVLGALAFQHLNTDSDTEGFLLEGVKGEAKNSITDSQDDVEVVYITID 60
DB 1 MEGESTSAVLSEFVLGALAFQHLNTDSDTEGFLLEGVKGEAKNSITDSQDDVEVVYITID 60

QY 61 IQKIYPCYOLFQFYNSGGEVNEQALKKILSNVKQNVGVGKPRRSHSDQIMTFRERLLHKN 120
DB 61 IQKIYPCYOLFQFYNSGGEVNEQALKKILSNVKQNVGVGKPRRSHSDQIMTFRERLLHKN 120

QY 121 LQEHFNSQDLVLLLTTPSIITSCSTHRLHSLYKPKGLFHRVPLVNVANLGMSEQLGYK 180
DB 121 LQEHFNSQDLVLLLTTPSIITSCSTHRLHSLYKPKGLFHRVPLVNVANLGMSEQLGYK 180

QY 181 TVSGSCMSGTFGRVOTHSKFEEDGSLKEVHKINEMVASYLQELKSIKCKVEDSEQAV 240
DB 181 TVSGSCMSGTFGRVOTHSKFEEDGSLKEVHKINEMVASYLQELKSIKCKVEDSEQAV 240

QY 241 DKLVKDVNLEKREIEKRGQAQIAAREKNIQKDPENIFLCOALRTFFPNSEFLHSCVMS 300
DB 241 DKLVKDVNLEKREIEKRGQAQIAAREKNIQKDPENIFLCOALRTFFPNSEFLHSCVMS 300

QY 301 LKNRHSVSKSCNHNHLDVVDNLTLVHTDIPASPASTPOIIKHKALDLDNRQFKRS 360
DB 301 LKNRHSVSKSCNHNHLDVVDNLTLVHTDIPASPASTPOIIKHKALDLDNRQFKRS 360

QY 361 RLDDTDQKRSKANTGSSNQDKASKMSPPETDEIEKMGFGYRSRPTF 409
DB 361 RLDDTDQKRSKANTGSSNQDKASKMSPPETDEIEKMGFGYRSRPTF 409

RESULT 83
ABU83109
ID ABU83109 standard; protein; 409 AA.
XX AC ABU83109;
XX DT 11-AUG-2003 (first entry)
XX DE Human secreted/transmembrane protein (PRO) #67.
XX KW Human; cytostatic; secreted and transmembrane protein; PRO;
XX KW chromosome mapping; gene mapping; gene therapy;
XX KW tumour necrosis factor alpha; TNF-alpha; chondrocyte; tumour.
XX OS Homo sapiens.
XX PN US2003032105-A1.
XX PD 13-FEB-2003.
XX PF 18-JUN-2002; 2002US-00174585.
XX PR 18-SEP-1997; 97US-0059263P.
XX PR 18-SEP-1997; 97US-0059266P.
XX PR 17-OCT-1997; 97US-0062250P.
XX PR 21-OCT-1997; 97US-0063486P.
XX PR 24-OCT-1997; 97US-0063120P.
XX PR 24-OCT-1997; 97US-0063121P.
XX PR 28-OCT-1997; 97US-0063540P.

PR 28-OCT-1997; 97US-0063541P.
PR 28-OCT-1997; 97US-0063544P.
PR 28-OCT-1997; 97US-0063564P.
PR 31-OCT-1997; 97US-0063870P.
PR 31-OCT-1997; 97US-0064103P.
PR 13-NOV-1997; 97US-0065311P.
PR 21-NOV-1997; 97US-0066120P.
PR 24-NOV-1997; 97US-0066466P.
PR 24-NOV-1997; 97US-0066772P.
PR 11-DEC-1997; 97US-0069335P.
PR 12-DEC-1997; 97US-0069425P.
PR 17-DEC-1997; 97US-0069870P.
PR 18-DEC-1997; 97US-0068017P.
PR 10-MAR-1998; 98US-0077450P.
PR 11-MAR-1998; 98US-0077632P.
PR 11-MAR-1998; 98US-0077649P.
PR 20-MAR-1998; 98US-0078866P.
PR 20-MAR-1998; 98US-0078939P.
PR 27-MAR-1998; 98US-0079664P.
PR 31-MAR-1998; 98US-0080107P.
PR 31-MAR-1998; 98US-0080194P.
PR 01-APR-1998; 98US-0080327P.
PR 01-APR-1998; 98US-0080333P.
PR 08-APR-1998; 98US-0081049P.
PR 08-APR-1998; 98US-0081070P.
PR 09-APR-1998; 98US-0081195P.
PR 15-APR-1998; 98US-0081838P.
PR 21-APR-1998; 98US-0082568P.
PR 21-APR-1998; 98US-0082569P.
PR 22-APR-1998; 98US-0082704P.
PR 22-APR-1998; 98US-0082797P.
PR 28-APR-1998; 98US-0083322P.
PR 29-APR-1998; 98US-0083495P.
PR 29-APR-1998; 98US-0083496P.
PR 29-APR-1998; 98US-0083499P.
PR 29-APR-1998; 98US-0083559P.
PR 05-MAY-1998; 98US-0084366P.
PR 06-MAY-1998; 98US-0084414P.
PR 07-MAY-1998; 98US-0084639P.
PR 07-MAY-1998; 98US-0084640P.
PR 07-MAY-1998; 98US-0084643P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085580P.
PR 15-MAY-1998; 98US-0085582P.
PR 15-MAY-1998; 98US-0085700P.
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087759P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088655P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088844P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
```

PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100919P.
PR	11-JUN-1998;	98US-0088876P.	PR	17-SEP-1998;	98US-0100930P.
PR	12-JUN-1998;	98US-0089090P.	PR	18-SEP-1998;	98US-0100849P.
PR	12-JUN-1998;	98US-0089109P.	PR	18-SEP-1998;	98US-0101014P.
PR	16-JUN-1998;	98US-0089512P.	PR	18-SEP-1998;	98US-0101068P.
PR	16-JUN-1998;	98US-0089514P.	PR	23-SEP-1998;	98US-0101471P.
PR	17-JUN-1998;	98US-0089539P.	PR	23-SEP-1998;	98US-0101472P.
PR	17-JUN-1998;	98US-0089598P.	PR	23-SEP-1998;	98US-0101475P.
PR	17-JUN-1998;	98US-0089653P.	PR	23-SEP-1998;	98US-0101477P.
PR	18-JUN-1998;	98US-0089608P.	PR	24-SEP-1998;	98US-0101738P.
PR	19-JUN-1998;	98US-0089852P.	PR	24-SEP-1998;	98US-0101739P.
PR	22-JUN-1998;	98US-0090248P.	PR	24-SEP-1998;	98US-0101743P.
PR	22-JUN-1998;	98US-0090252P.	PR	24-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090254P.	PR	25-SEP-1998;	98US-0101786P.
PR	24-JUN-1998;	98US-0090429P.	PR	29-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090433P.	PR	29-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090444P.	PR	29-SEP-1998;	98US-0102330P.
PR	24-JUN-1998;	98US-0090461P.	PR	29-SEP-1998;	98US-0102331P.
PR	24-JUN-1998;	98US-0090533P.	PR	30-SEP-1998;	98US-0102487P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102570P.
PR	25-JUN-1998;	98US-0090676P.	PR	01-OCT-1998;	98US-0102571P.
PR	25-JUN-1998;	98US-0090678P.	PR	01-OCT-1998;	98US-0102684P.
PR	25-JUN-1998;	98US-0090688P.	PR	02-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090690P.	PR	06-OCT-1998;	98US-0102965P.
PR	25-JUN-1998;	98US-0090694P.	PR	06-OCT-1998;	98US-0103258P.
PR	25-JUN-1998;	98US-0090693P.	PR	06-OCT-1998;	98US-0103449P.
PR	25-JUN-1998;	98US-0090696P.	PR	07-OCT-1998;	98US-0016897H.
PR	26-JUN-1998;	98US-00105413.	Query Match 100.0%; Score 409; DB 6; Length 409;		
PR	26-JUN-1998;	98US-0090862P.	Best Local Similarity 100.0%; Pred. No. 0;		
PR	26-JUN-1998;	98US-0090863P.	Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
PR	26-JUN-1998;	98US-0091010P.	Qy	1	MEGESTSAVLSGFVLGALAFQHLNTSDTEGFLGELGVEKGEAKNSITDSQMDDEVVVTID 60
PR	01-JUL-1998;	98US-0091135P.	Db	1	MEGESTSAVLSGFVLGALAFQHLNTSDTEGFLGELGVEKGEAKNSITDSQMDDEVVVTID 60
PR	01-JUL-1998;	98US-0091544P.	Qy	61	IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVVGWYKFRHSDQIMTFRERLIHKN 120
PR	02-JUL-1998;	98US-0091478P.	Db	61	IQKYPICYQLFSFYNSGGEVNEQALKILSNVKNVVGWYKFRHSDQIMTFRERLIHKN 120
PR	02-JUL-1998;	98US-0091486P.	Qy	121	LOEHFSNODLVFLLLTPSIITSCSTRLEHSLYKPKQGLFHRVPLVWNLGSEQLYK 180
PR	02-JUL-1998;	98US-0091626P.	Db	121	LOEHFSNODLVFLLLTPSIITSCSTRLEHSLYKPKQGLFHRVPLVWNLGSEQLYK 180
PR	02-JUL-1998;	98US-0091632P.	Qy	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLOBELKSICKKVEDSEQAV 240
PR	24-JUL-1998;	98US-0094006P.	Db	181	TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLOBELKSICKKVEDSEQAV 240
PR	04-AUG-1998;	98US-0095282P.	Qy	241	DKLVKDVNRLKREIKRGAQIQAAEKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300
PR	10-AUG-1998;	98US-0095998P.	Db	241	DKLVKDVNRLKREIKRGAQIQAAEKNIQKDPQENIFLQALRTFFPNSEFLHSCVMS 300
PR	10-AUG-1998;	98US-0096012P.	Qy	301	LKXRVHSKSCNTNHHLDVVNDLTLVHEHTDIPASPASTPQIIKKKALDLDWRQFKRS 360
PR	17-AUG-1998;	98US-0096766P.	Db	301	LKXRVHSKSCNTNHHLDVVNDLTLVHEHTDIPASPASTPQIIKKKALDLDWRQFKRS 360
PR	17-AUG-1998;	98US-0096867P.	Qy	361	RLLDQDKRSKANTGSSNQDKASKMSSPETDEFEIKMGGEYSRSPTF 409
PR	17-AUG-1998;	98US-0098891P.	Db	361	RLLDQDKRSKANTGSSNQDKASKMSSPETDEFEIKMGGEYSRSPTF 409
PR	17-AUG-1998;	98US-0098897P.	RESULT 84		
PR	18-AUG-1998;	98US-0096949P.	ABU94965		
PR	18-AUG-1998;	98US-0096959P.	ID ABU94965 standard; protein; 409 AA.		
PR	26-AUG-1998;	98US-0097022P.	XX ABU94965;		
PR	26-AUG-1998;	98US-0097952P.	AC ABU94965;		
PR	26-AUG-1998;	98US-0097954P.	XX 24-JUL-2003 (first entry)		
PR	26-AUG-1998;	98US-0097955P.	DT		
PR	26-AUG-1998;	98US-0097971P.	XX		
PR	26-AUG-1998;	98US-0098014P.	XX		
PR	01-SEP-1998;	98US-0098716P.	DE		
PR	01-SEP-1998;	98US-0098723P.	XX		
PR	02-SEP-1998;	98US-0098803P.	KW		
PR	02-SEP-1998;	98US-0098821P.	KW		
PR	02-SEP-1998;	98US-0098843P.	Human; secreted and transmembrane protein: PRO; cytostatic; gene therapy; tumour.		
PR	09-SEP-1998;	98US-0099602P.			
PR	10-SEP-1998;	98US-0099741P.			
PR	10-SEP-1998;	98US-0099754P.			
PR	10-SEP-1998;	98US-0099763P.			
PR	10-SEP-1998;	98US-0099812P.			
PR	15-SEP-1998;	98US-0100388P.			
PR	16-SEP-1998;	98US-0100662P.			
PR	16-SEP-1998;	98US-0100664P.			
PR	16-SEP-1998;	98US-0101751P.			
PR	16-SEP-1998;	98WO-US019330.			
PR	17-SEP-1998;	98US-0100683P.			
PR	17-SEP-1998;	98US-0100684P.			

XX OS Homo sapiens.  
XX PN US2003032123-A1.  
XX PD 13-FEB-2003.  
XX PF 25-JUN-2002; 2002US-00180555.  
XX PR 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0065120P.  
PR 24-NOV-1997; 97US-0065468P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082528P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083222P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 07-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088126P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 13-JUN-1998; 98US-0089352P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090895P.  
PR 25-JUN-1998; 98US-0090896P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.

```
PR 01-SEP-1998; 98US-0098723P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0098602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 10-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100664P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98US-0101751P.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101743P.
PR 25-SEP-1998; 98US-0101922P.
PR 29-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102965P.
PR 06-OCT-1998; 98US-0103258P.
PR 06-OCT-1998; 98US-0103449P.
PR 07-OCT-1998; 98US-00168978.
PR 07-OCT-1998; 98US-0103395P.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Fred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGPFVLGALAFQHLNTDSDTGFLGGEVKEAKNSITDSQMDVVEVYIID 60
DB 1 MEGESTSAVLGPFVLGALAFQHLNTDSDTGFLGGEVKEAKNSITDSQMDVVEVYIID 60

QY 61 IQYIIFCYQLFFYNSGGEVGEQALKILSNVKNVGVGHYKRRHSDQIMTFRELLHKN 120
DB 61 IQYIIFCYQLFFYNSGGEVGEQALKILSNVKNVGVGHYKRRHSDQIMTFRELLHKN 120

QY 121 LQHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVLANLQMSQLGVK 180
DB 121 LQHFNSQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVLANLQMSQLGVK 180

QY 181 TVSGSCMSTGFGRAVTHSKFFPEDGSLKEVHKINEMVASYLQEBKSIKKVDESEQAV 240
DB 181 TVSGSCMSTGFGRAVTHSKFFPEDGSLKEVHKINEMVASYLQEBKSIKKVDESEQAV 240

QY 241 DKLVKDVNLKREIEKRGAGQCAAREKNIQKDPQENIFLCOALRFFPNSFFLHSCVMS 300
DB 241 DKLVKDVNLKREIEKRGAGQCAAREKNIQKDPQENIFLCOALRFFPNSFFLHSCVMS 300

QY 301 LKVRHYSKSCNNHHLVDVNDLTLMVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS 360
DB 301 LKVRHYSKSCNNHHLVDVNDLTLMVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS 360
```

```
QY 361 RLDDTDQKRKANTGSSNQDKASKMSSPETDEIEKMKGFEYSRSPFF 409
DB 361 RLDDTDQKRKANTGSSNQDKASKMSSPETDEIEKMKGFEYSRSPFF 409

RESULT 85
ABU90513
ID ABU90513 standard; protein; 409 AA.
XX AC ABU90513;
XX DT 14-JUN-2003 (first entry)
XX DE Novel human secreted and transmembrane protein PRO1013.
XX KW Human; secreted and transmembrane protein; PRO; cytostatic; gene therapy;
XX OS chondrocyte stimulator; chromosome mapping; gene mapping; tumour.
XX OS Homo sapiens.
XX PN US2003032108-A1.
XX PD 13-FEB-2003.
XX PE 21-JUN-2002; 2002US-00176481.
XX PR 18-SEP-1997; 97US-0059263P.
XX PR 18-SEP-1997; 97US-0059266P.
XX PR 17-OCT-1997; 97US-0062250P.
XX PR 21-OCT-1997; 97US-0063486P.
XX PR 24-OCT-1997; 97US-0063120P.
XX PR 24-OCT-1997; 97US-0063121P.
XX PR 28-OCT-1997; 97US-0063540P.
XX PR 28-OCT-1997; 97US-0063541P.
XX PR 28-OCT-1997; 97US-0063544P.
XX PR 28-OCT-1997; 97US-0063564P.
XX PR 29-OCT-1997; 97US-0063734P.
XX PR 31-OCT-1997; 97US-0063870P.
XX PR 31-OCT-1997; 97US-0064103P.
XX PR 13-NOV-1997; 97US-0065311P.
XX PR 21-NOV-1997; 97US-0066120P.
XX PR 24-NOV-1997; 97US-0066466P.
XX PR 24-NOV-1997; 97US-0066772P.
XX PR 12-DEC-1997; 97US-0069335P.
XX PR 12-DEC-1997; 97US-0069425P.
XX PR 17-DEC-1997; 97US-0069870P.
XX PR 18-DEC-1997; 97US-0068017P.
XX PR 10-MAR-1998; 98US-0077450P.
XX PR 11-MAR-1998; 98US-0077632P.
XX PR 11-MAR-1998; 98US-0077649P.
XX PR 20-MAR-1998; 98US-0078886P.
XX PR 20-MAR-1998; 98US-0078939P.
XX PR 27-MAR-1998; 98US-0079664P.
XX PR 27-MAR-1998; 98US-0079786P.
XX PR 31-MAR-1998; 98US-0080107P.
XX PR 31-MAR-1998; 98US-0080194P.
XX PR 01-APR-1998; 98US-0080327P.
XX PR 01-APR-1998; 98US-0080333P.
XX PR 08-APR-1998; 98US-0081049P.
XX PR 08-APR-1998; 98US-0081070P.
XX PR 09-APR-1998; 98US-0081195P.
XX PR 15-APR-1998; 98US-0081638P.
XX PR 15-APR-1998; 98US-0082568P.
XX PR 21-APR-1998; 98US-0082569P.
XX PR 22-APR-1998; 98US-0082704P.
XX PR 22-APR-1998; 98US-0082797P.
XX PR 28-APR-1998; 98US-0083322P.
XX PR 29-APR-1998; 98US-0083495P.
XX PR 29-APR-1998; 98US-0083496P.
XX PR 29-APR-1998; 98US-0083499P.
XX PR 29-APR-1998; 98US-0083559P.
XX PR 05-MAY-1998; 98US-0084366P.
XX PR 06-MAY-1998; 98US-0084414P.
```



```
PR 07-MAY-1998; 98US-0084639P.
PR 07-MAY-1998; 98US-0084640P.
PR 07-MAY-1998; 98US-0084643P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085580P.
PR 15-MAY-1998; 98US-0085582P.
PR 15-MAY-1998; 98US-0085700P.
PR 18-MAY-1998; 98US-0086023P.
PR 22-MAY-1998; 98US-0086392P.
PR 22-MAY-1998; 98US-0086486P.
PR 28-MAY-1998; 98US-0087098P.
PR 28-MAY-1998; 98US-0087208P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087759P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088028P.
PR 04-JUN-1998; 98US-0088029P.
PR 04-JUN-1998; 98US-0088033P.
PR 04-JUN-1998; 98US-0088326P.
PR 05-JUN-1998; 98US-0088167P.
PR 05-JUN-1998; 98US-0088202P.
PR 05-JUN-1998; 98US-0088212P.
PR 05-JUN-1998; 98US-0088217P.
PR 09-JUN-1998; 98US-0088655P.
PR 10-JUN-1998; 98US-0088722P.
PR 10-JUN-1998; 98US-0088738P.
PR 10-JUN-1998; 98US-0088740P.
PR 10-JUN-1998; 98US-0088811P.
PR 10-JUN-1998; 98US-0088824P.
PR 10-JUN-1998; 98US-0088825P.
PR 10-JUN-1998; 98US-0088826P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088863P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089090P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089512P.
PR 16-JUN-1998; 98US-0089514P.
PR 17-JUN-1998; 98US-0089538P.
PR 17-JUN-1998; 98US-0089598P.
PR 17-JUN-1998; 98US-0089653P.
PR 18-JUN-1998; 98US-0089908P.
PR 19-JUN-1998; 98US-0089952P.
PR 22-JUN-1998; 98US-0090246P.
PR 22-JUN-1998; 98US-0090252P.
PR 22-JUN-1998; 98US-0090254P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090435P.
PR 24-JUN-1998; 98US-0090444P.
PR 24-JUN-1998; 98US-0090461P.
PR 24-JUN-1998; 98US-0090535P.
PR 24-JUN-1998; 98US-0090540P.
PR 23-JUN-1998; 98US-0090766P.
PR 23-JUN-1998; 98US-0090678P.
PR 25-JUN-1998; 98US-0090688P.
PR 25-JUN-1998; 98US-0090690P.
PR 25-JUN-1998; 98US-0090694P.
PR 25-JUN-1998; 98US-0090695P.
PR 25-JUN-1998; 98US-0090696P.
PR 26-JUN-1998; 98US-00105413.
PR 26-JUN-1998; 98US-0090862P.
PR 26-JUN-1998; 98US-0090863P.
PR 26-JUN-1998; 98US-0091010P.
PR 01-JUL-1998; 98US-0091359P.
PR 01-JUL-1998; 98US-0091544P.
PR 02-JUL-1998; 98US-0091478P.
PR 02-JUL-1998; 98US-0091486P.
PR 02-JUL-1998; 98US-0091626P.
PR 02-JUL-1998; 98US-0091628P.
PR 02-JUL-1998; 98US-0091632P.
PR 24-JUL-1998; 98US-0094006P.
PR 04-AUG-1998; 98US-0095282P.

PR 10-AUG-1998; 98US-0095998P.
PR 10-AUG-1998; 98US-0096012P.
PR 17-AUG-1998; 98US-0096757P.
PR 17-AUG-1998; 98US-0096766P.
PR 17-AUG-1998; 98US-0096867P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096897P.
PR 18-AUG-1998; 98US-0096949P.
PR 18-AUG-1998; 98US-0096959P.
PR 18-AUG-1998; 98US-0097022P.
PR 18-AUG-1998; 98US-0097952P.
PR 26-AUG-1998; 98US-0097954P.
PR 26-AUG-1998; 98US-0097955P.
PR 26-AUG-1998; 98US-0097971P.
PR 26-AUG-1998; 98US-0097974P.
PR 26-AUG-1998; 98US-0098014P.
PR 01-SEP-1998; 98US-0098716P.
PR 02-SEP-1998; 98US-0098803P.
PR 02-SEP-1998; 98US-0098821P.
PR 02-SEP-1998; 98US-0098843P.
PR 09-SEP-1998; 98US-0099602P.
PR 10-SEP-1998; 98US-0099741P.
PR 10-SEP-1998; 98US-0099754P.
PR 10-SEP-1998; 98US-0099763P.
PR 15-SEP-1998; 98US-0099812P.
PR 15-SEP-1998; 98US-0100388P.
PR 16-SEP-1998; 98US-0100662P.
PR 16-SEP-1998; 98US-0100864P.
PR 16-SEP-1998; 98US-0101751P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100683P.
PR 17-SEP-1998; 98US-0100684P.
PR 17-SEP-1998; 98US-0100919P.
PR 17-SEP-1998; 98US-0100930P.
PR 18-SEP-1998; 98US-0100849P.
PR 18-SEP-1998; 98US-0101014P.
PR 18-SEP-1998; 98US-0101068P.
PR 23-SEP-1998; 98US-0101471P.
PR 23-SEP-1998; 98US-0101472P.
PR 23-SEP-1998; 98US-0101475P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101738P.
PR 24-SEP-1998; 98US-0101739P.
PR 24-SEP-1998; 98US-0101743P.
PR 24-SEP-1998; 98US-0101922P.
PR 25-SEP-1998; 98US-0101786P.
PR 29-SEP-1998; 98US-0102207P.
PR 29-SEP-1998; 98US-0102240P.
PR 29-SEP-1998; 98US-0102330P.
PR 29-SEP-1998; 98US-0102331P.
PR 30-SEP-1998; 98US-0102487P.
PR 30-SEP-1998; 98US-0102570P.
PR 30-SEP-1998; 98US-0102571P.
PR 01-OCT-1998; 98US-0102684P.
PR 01-OCT-1998; 98US-0102687P.
PR 02-OCT-1998; 98US-0102955P.
PR 06-OCT-1998; 98US-0103258P.
PR 07-OCT-1998; 98US-0103449P.
PR 07-OCT-1998; 98US-00168978.
PR 07-OCT-1998; 98US-0103395P.

Query Match 100.0%; Score 409; DB 6; Length 409;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MEGESTSAVLGGFVLGALAFQHLNTSDTEGFLGEGVKGAKNSITDSQMDVYVYVYID 60
Db 1 MEGESTSAVLGGFVLGALAFQHLNTSDTEGFLGEGVKGAKNSITDSQMDVYVYVYID 60
QY 61 IQKYPICYQLFESFYNSGSSEVNEQALKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120
Db 61 IQKYPICYQLFESFYNSGSSEVNEQALKILSNVKNVGVYKFRHSDQIMTFRERLLHKN 120
```

QY	121	LOEHFNSODLVFLLLTTSIIITESCSTRHLEHSLYKPKQGLFHRVPLVAVANLQWSEQLGYK	180
Db	121	LOEHFNSODLVFLLLTTSIIITESCSTRHLEHSLYKPKQGLFHRVPLVAVANLQWSEQLGYK	180
QY	181	TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLOEELKSI CKKVEDSEQAV	240
Db	181	TVSGSCMTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLOEELKSI CKKVEDSEQAV	240
QY	241	DKLVKDVNRLKREIEKRGGAQIQAAREKNIQKQPQENIFLCQALRTFFPNSSEFLHSCVMS	300
Db	241	DKLVKDVNRLKREIEKRGGAQIQAAREKNIQKQPQENIFLCQALRTFFPNSSEFLHSCVMS	300
QY	301	LKQHVHSSKSCNYNHHLDVVDNLTIAMVEHTDIPASPASTPQIIKHKALDLDLRWQFKRS	360
Db	301	LKQHVHSSKSCNYNHHLDVVDNLTIAMVEHTDIPASPASTPQIIKHKALDLDLRWQFKRS	360
QY	361	RLLDTDQKRSKANTGSSNQDKASQWSSPETDEEIEKMKGFGEYSRSPTF	409
Db	361	RLLDTDQKRSKANTGSSNQDKASQWSSPETDEEIEKMKGFGEYSRSPTF	409
RESULT 86			
ABU84024			
ID	ABU84024	standard; protein; 409 AA.	
XX	AC	ABU84024;	
XX	XX		
DD	DT	11-AUG-2003 (first entry)	
XX	XX		
DE	DE	Human secreted/transmembrane protein (PRO) #67.	
KW	KW	Human; secreted and transmembrane protein; PRO; TNF-alpha;	
KX	KX	tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;	
KX	KX	tissue typing; cytostatic.	
OS	OS	Homo sapiens.	
XX	XX		
XX	XX	US2003032111-A1.	
PN	PN		
XX	XX	13-FEB-2003.	
PD	PD		
XX	XX	20-JUN-2002; 2002US-00176493.	
PF	PF		
XX	XX	18-SEP-1997; 97US-0059263P.	
PR	PR	18-SEP-1997; 97US-0059266P.	
PR	PR	17-OCT-1997; 97US-0062250P.	
PR	PR	21-OCT-1997; 97US-0063486P.	
PR	PR	24-OCT-1997; 97US-0063120P.	
PR	PR	24-OCT-1997; 97US-0063121P.	
PR	PR	28-OCT-1997; 97US-0063540P.	
PR	PR	28-OCT-1997; 97US-0063541P.	
PR	PR	28-OCT-1997; 97US-0063544P.	
PR	PR	28-OCT-1997; 97US-0063564P.	
PR	PR	29-OCT-1997; 97US-0063734P.	
PR	PR	31-OCT-1997; 97US-0063870P.	
PR	PR	31-OCT-1997; 97US-0064103P.	
PR	PR	13-NOV-1997; 97US-0065311P.	
PR	PR	21-NOV-1997; 97US-0066120P.	
PR	PR	24-NOV-1997; 97US-0066466P.	
PR	PR	24-NOV-1997; 97US-0066772P.	
PR	PR	11-DEC-1997; 97US-0069335P.	
PR	PR	12-DEC-1997; 97US-0069425P.	
PR	PR	17-DEC-1997; 97US-0069870P.	
PR	PR	18-DEC-1997; 97US-0068017P.	
PR	PR	10-MAR-1998; 98US-0077450P.	
PR	PR	11-MAR-1998; 98US-0077632P.	
PR	PR	11-MAR-1998; 98US-0077649P.	
PR	PR	20-MAR-1998; 98US-0078866P.	
PR	PR	20-MAR-1998; 98US-0078339P.	
PR	PR	27-MAR-1998; 98US-0079664P.	
PR	PR	27-MAR-1998; 98US-0079786P.	
PR	PR	31-MAR-1998; 98US-0080107P.	

PR 01-OCT-1998; 98US-0102687P.  
PR 02-OCT-1998; 98US-0102965P.  
PR 06-OCT-1998; 98US-0103258P.  
PR 06-OCT-1998; 98US-0103449P.  
PR 07-OCT-1998; 98US-00168978.  
  
Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 1 MEGESTSAVLGFGVLCALAFQHLNTSDTEGFLGKGNKSTDSOMDDVEVVYITD 60  
DB 1 MEGESTSAVLGFGVLCALAFQHLNTSDTEGFLGKGNKSTDSOMDDVEVVYITD 60  
  
QY 61 IQYIPCYQLFSPYNSGVEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRELLHKN 120  
DB 61 IQYIPCYQLFSPYNSGVEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRELLHKN 120  
  
QY 121 LQEHFNSQDLVFLLLTPSIITSCSTRHLEHSLYKPKGLFHRVPLVWNLGMSQLGYK 180  
DB 121 LQEHFNSQDLVFLLLTPSIITSCSTRHLEHSLYKPKGLFHRVPLVWNLGMSQLGYK 180  
  
QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIOELKSTCKKVEDSEQAV 240  
DB 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASIOELKSTCKKVEDSEQAV 240  
  
QY 241 DKLVDVNRLEKRIEKRRAQIQAAEKNIQDPOENIFLCOALRTFPNSEFLHSCVMS 300  
DB 241 DKLVDVNRLEKRIEKRRAQIQAAEKNIQDPOENIFLCOALRTFPNSEFLHSCVMS 300  
  
QY 301 LKRVHVKSSCNVHLLDVVDNLTLMVETDIPASPASTPOIKKALDLDLRMQFKRS 360  
DB 301 LKRVHVKSSCNVHLLDVVDNLTLMVETDIPASPASTPOIKKALDLDLRMQFKRS 360  
  
QY 361 RLDDTQDKRSKANTGSSNODKASKMSPETDEIEKMKGFGEYSRSPTF 409  
DB 361 RLDDTQDKRSKANTGSSNODKASKMSPETDEIEKMKGFGEYSRSPTF 409  
  
RESULT 87  
ABU93675  
ID ABU93675 standard; protein; 409 AA.  
XX AC ABU93675;  
XX DT 11-AUG-2003 (first entry)  
XX DE Novel human secreted and transmembrane protein PRO1013.  
XX KW Human; gene therapy; chondrocyte stimulator; tumour; TNF-alpha;  
XX KW tumour necrosis factor alpha.  
XX OS Homo sapiens.  
XX FN US2003032119-A1.  
XX PD 13-FEB-2003.  
XX PF 25-JUN-2002; 2002US-00180544.  
XX PR 26-JUN-1998; 98US-00105413.  
PR 16-SEP-1998; 98WO-US019330.  
PR 07-OCT-1998; 98US-00168978.  
PR 07-OCT-1998; 98WO-US021141.  
PR 06-NOV-1998; 98US-00187368.  
PR 01-DEC-1998; 98WO-US025108.  
PR 07-DEC-1998; 98US-00202054.  
PR 03-MAR-1999; 99US-00254311.  
PR 08-MAR-1999; 99WO-US005028.  
PR 14-MAY-1999; 99US-00311832.  
PR 14-MAY-1999; 99WO-US010733.  
PR 02-JUN-1999; 99WO-US012252.  
PR 25-AUG-1999; 99US-00380137.

25-JUN-1998; 98US-0090688P.  
25-JUN-1998; 98US-0090690P.  
25-JUN-1998; 98US-0090694P.  
25-JUN-1998; 98US-0090695P.  
25-JUN-1998; 98US-0090696P.  
26-JUN-1998; 98US-00105413.  
26-JUN-1998; 98US-0090862P.  
26-JUN-1998; 98US-0090863P.  
01-JUL-1998; 98US-0091010P.  
01-JUL-1998; 98US-0091359P.  
01-JUL-1998; 98US-0091544P.  
02-JUL-1998; 98US-0091478P.  
02-JUL-1998; 98US-0091486P.  
02-JUL-1998; 98US-0091626P.  
02-JUL-1998; 98US-0091628P.  
02-JUL-1998; 98US-0091632P.  
04-AUG-1998; 98US-0094006P.  
04-AUG-1998; 98US-0095282P.  
10-AUG-1998; 98US-0095998P.  
10-AUG-1998; 98US-0096012P.  
17-AUG-1998; 98US-0096757P.  
17-AUG-1998; 98US-0096766P.  
17-AUG-1998; 98US-0096867P.  
17-AUG-1998; 98US-0096891P.  
17-AUG-1998; 98US-0096897P.  
18-AUG-1998; 98US-0096949P.  
18-AUG-1998; 98US-0096959P.  
18-AUG-1998; 98US-0097022P.  
26-AUG-1998; 98US-0097952P.  
26-AUG-1998; 98US-0097954P.  
26-AUG-1998; 98US-0097955P.  
26-AUG-1998; 98US-0097971P.  
26-AUG-1998; 98US-0097974P.  
01-SEP-1998; 98US-0098014P.  
01-SEP-1998; 98US-0098716P.  
01-SEP-1998; 98US-0098723P.  
02-SEP-1998; 98US-0098803P.  
02-SEP-1998; 98US-0098821P.  
02-SEP-1998; 98US-0098843P.  
09-SEP-1998; 98US-0099602P.  
10-SEP-1998; 98US-0099741P.  
10-SEP-1998; 98US-0099754P.  
10-SEP-1998; 98US-0099763P.  
10-SEP-1998; 98US-0099812P.  
15-SEP-1998; 98US-0100388P.  
16-SEP-1998; 98US-0100662P.  
16-SEP-1998; 98US-0100664P.  
16-SEP-1998; 98US-0101751P.  
17-SEP-1998; 98WO-US019330.  
17-SEP-1998; 98US-0100683P.  
17-SEP-1998; 98US-0100684P.  
17-SEP-1998; 98US-0100919P.  
17-SEP-1998; 98US-0100930P.  
18-SEP-1998; 98US-0100849P.  
18-SEP-1998; 98US-0101014P.  
18-SEP-1998; 98US-0101066P.  
23-SEP-1998; 98US-0101471P.  
23-SEP-1998; 98US-0101472P.  
23-SEP-1998; 98US-0101475P.  
23-SEP-1998; 98US-0101477P.  
24-SEP-1998; 98US-0101758P.  
24-SEP-1998; 98US-0101759P.  
24-SEP-1998; 98US-0101743P.  
24-SEP-1998; 98US-0101922P.  
25-SEP-1998; 98US-0101786P.  
25-SEP-1998; 98US-0102207P.  
29-SEP-1998; 98US-0102240P.  
29-SEP-1998; 98US-0102330P.  
29-SEP-1998; 98US-0102331P.  
30-SEP-1998; 98US-0102570P.  
30-SEP-1998; 98US-0102571P.  
01-OCT-1998; 98US-0102684P.

PR 25-AUG-1999; 99US-00380138.  
PR 25-AUG-1999; 99US-00380139.  
PR 25-AUG-1999; 99US-00380142.  
PR 01-SEP-1999; 99WO-US020111.  
PR 15-SEP-1999; 99WO-US020190.  
PR 18-OCT-1999; 99US-00403297.  
PR 12-NOV-1999; 99US-00423844.  
PR 01-DEC-1999; 99WO-US028301.  
PR 02-DEC-1999; 99WO-US028551.  
PR 30-DEC-1999; 99WO-US031274.  
PR 05-JAN-2000; 2000WO-US000219.  
PR 18-FEB-2000; 2000WO-US004341.  
PR 18-FEB-2000; 2000WO-US004342.  
PR 22-FEB-2000; 2000WO-US004414.  
PR 24-FEB-2000; 2000WO-US005004.  
PR 01-MAR-2000; 2000WO-US005601.  
PR 02-MAR-2000; 2000WO-US005841.  
PR 15-MAR-2000; 2000WO-US006884.  
PR 30-MAR-2000; 2000WO-US006849.  
PR 17-MAY-2000; 2000WO-US013705.  
PR 22-MAY-2000; 2000WO-US014042.  
PR 30-MAY-2000; 2000WO-US014941.  
PR 02-JUN-2000; 2000WO-US015264.  
PR 28-JUL-2000; 2000WO-US020710.  
PR 22-AUG-2000; 2000US-00644848.  
PR 24-AUG-2000; 2000WO-US023328.  
PR 18-SEP-2000; 2000US-00664610.  
PR 18-SEP-2000; 2000US-00665350.  
PR 08-NOV-2000; 2000US-00709238.  
PR 08-NOV-2000; 2000WO-US030952.  
PR 01-DEC-2000; 2000WO-US032678.  
PR 20-DEC-2000; 2000US-00747259.  
PR 20-DEC-2000; 2000WO-US034956.  
PR 28-FEB-2001; 2001WO-US006520.  
PR 22-MAR-2001; 2001US-00816744.  
PR 10-MAY-2001; 2001US-00854208.  
PR 10-MAY-2001; 2001US-00854208.  
PR 25-MAY-2001; 2001US-00860028.  
PR 01-JUN-2001; 2001WO-US017800.  
PR 05-JUN-2001; 2001US-00874503.  
PR 20-JUN-2001; 2001WO-US019692.  
PR 29-JUN-2001; 2001WO-US021066.  
PR 09-JUL-2001; 2001WO-US021735.  
PR 18-JUL-2001; 2001US-00908827.  
PR 30-JUL-2001; 2001US-00918585.  
PR 06-AUG-2001; 2001US-00924419.  
PR 13-AUG-2001; 2001US-00929404.  
PR 16-AUG-2001; 2001US-00931836.  
PR 28-AUG-2001; 2001US-00941992.  
PR 29-AUG-2001; 2001WO-US027099.  
PR 04-SEP-2001; 2001US-00946374.  
PR 15-JAN-2002; 2002US-00052586.  
XX XX  
PA (GETH ) GENENTECH INC.  
XX  
XX Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;  
PI Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;  
XX  
XX WPI; 2003-341973/32.  
DR N-PSDB; ACA95215.  
XX  
XX Three hundred and five nucleic acids encoding PRO polypeptides, useful  
PT for the manufacture of a medicament for diagnosing or treating tumor or  
PT for measuring or detecting expression of an associated gene.  
XX  
XX Claim 11; Fig 134; 707pp; English.  
XX  
XX The invention relates to three hundred and five nucleic acids encoding  
CC PRO polypeptides (secreted and transmembrane). The PRO nucleic acids and  
CC polypeptides are useful for the manufacture of a medicament for  
CC diagnosing or treating tumour in a mammal, for measuring or detecting  
CC expression of an associated gene, for stimulation of chondrocytes and for  
CC stimulating the release of tumour necrosis factor alpha (TNF-alpha) from

CC human blood. The present sequence represents the amino acid sequence of a  
CC secreted and transmembrane PRO protein. Note: The sequence data for this  
CC patent did not form part of the printed specification but was obtained in  
CC electronic format directly from USPTO at  
CC seqdata.uspto.gov/sequence.html?DocID=20030032199  
XX  
XX Sequence 409 AA;  
Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MEGESTSAVLGSGFVLGALAFQHLNTDSTEGFLGVEGKEAKNSITDSQMDVVEVYITD 60  
DB 1 MEGESTSAVLGSGFVLGALAFQHLNTDSTEGFLGVEGKEAKNSITDSQMDVVEVYITD 60  
QY 61 IQKVIQYQLFSPYNSGVEQALKKILSNVKNVGVYKFRHSQDQIMTFRERLLHKN 120  
DB 61 IQKVIQYQLFSPYNSGVEQALKKILSNVKNVGVYKFRHSQDQIMTFRERLLHKN 120  
QY 121 LQEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVNLGMSQOLGYK 180  
DB 121 LQEHFSNQDLVFLLLTPSIITSCSTHRLHSLYKPKGLFHRVPLVAVNLGMSQOLGYK 180  
QY 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMYASIQEELKSIKKVEDSEQAV 240  
DB 181 TVSGSCMSTGFSRAVQTHSSKFEEDGSLKEVHKINEMYASIQEELKSIKKVEDSEQAV 240  
QY 241 DKLVKDVNRLKREIKRGAQIQAREKNIQKDPQENIFLQALRTFFPNSBFLHSCVMS 300  
DB 241 DKLVKDVNRLKREIKRGAQIQAREKNIQKDPQENIFLQALRTFFPNSBFLHSCVMS 300  
QY 301 LKNRVYSKSCNYYHLDVVDNLTVHTDIPEASPASTPQIIKHKALDLDLRWQFKKS 360  
DB 301 LKNRVYSKSCNYYHLDVVDNLTVHTDIPEASPASTPQIIKHKALDLDLRWQFKKS 360  
QY 361 RLDDTDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF 409  
DB 361 RLDDTDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYRSRPTF 409  
RESULT 88  
ABO25926  
ID ABO25926 standard; protein; 409 AA.  
XX AC ABO25926;  
XX DT 10-SEP-2003 (first entry)  
XX DE Human PRO1013 polypeptide.  
XX KW Human; PRO polypeptide; secreted protein; transmembrane protein;  
XX KM genetic disorder; antibacterial; immunosuppressive.  
XX OS Homo sapiens.  
XX PN US2002127576-A1.  
XX PD 12-SEP-2002.  
XX PF 14-NOV-2001; 2001US-00991073.  
XX PR 16-JUN-1997; 97US-0049787P.  
XX PR 17-OCT-1997; 97US-0062250P.  
XX PR 05-NOV-1997; 97WO-US020069.  
XX PR 12-NOV-1997; 97US-0065186P.  
XX PR 13-NOV-1997; 97US-0065311P.  
XX PR 24-NOV-1997; 97US-0066770P.  
XX PR 25-FEB-1998; 98US-0075945P.  
XX PR 20-MAR-1998; 98US-0078910P.  
XX PR 28-APR-1998; 98US-0083322P.  
XX PR 07-MAY-1998; 98US-0084600P.  
XX PR 28-MAY-1998; 98US-0087106P.



Db	301	LNKRVHYSKSCNYNHLVDVNDLTLNVEHTDPEASFPSTQIIKHKALDLDORWQFKS	360	PR	22-APR-1998;	98US-00827979F;
				PR	28-APR-1998;	98US-00833225P;
				PR	29-APR-1998;	98US-00834495P;
QY	361	RLILDQDKSKANTGSSNODKASKMSSPETDEIEKWKGFGEYSRPTF	409	PR	29-APR-1998;	98US-00834496P;
				PR	29-APR-1998;	98US-00834992P;
				PR	29-APR-1998;	98US-00835592P;
Db	361	RLILDQDKSKANTGSSNQDKASKMSSPETDEIEKWKGFGEYSRPTF	409	PR	05-MAY-1998;	98US-00843662P;
				PR	06-MAY-1998;	98US-00844141P;
				PR	07-MAY-1998;	98US-00846392P;
				PR	07-MAY-1998;	98US-00846401P;
				PR	07-MAY-1998;	98US-00846434P;
XX	AC	ABR64920 standard; protein; 409 AA.		PR	15-MAY-1998;	98US-00855799P;
XX	AC	ABR64920;		PR	15-MAY-1998;	98US-00855800P;
XX	AC	ABR64920;		PR	15-MAY-1998;	98US-00855822P;
DT	DT	28-JUL-2003 (first entry)		PR	15-MAY-1998;	98US-00857000P;
XX	DE	Human secreted polypeptide PRO1013, SEQ ID NO:134.		PR	18-MAY-1998;	98US-00860232P;
XX	DE	Human secreted polypeptide PRO1013, SEQ ID NO:134.		PR	22-MAY-1998;	98US-00863932P;
XX	DE	Human secreted polypeptide PRO1013, SEQ ID NO:134.		PR	22-MAY-1998;	98US-00863932P;
XX	KW	Human, PRO; secreted protein; transmembrane protein;		PR	22-MAY-1998;	98US-00864869P;
XX	KW	extracellular domain; tumour necrosis factor-alpha; TNF-alpha;		PR	28-MAY-1998;	98US-00870989P;
XX	KW	chondrocyte; proliferation; differentiation; cartilage disorder;		PR	28-MAY-1998;	98US-00872088P;
XX	KW	bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;		PR	28-MAY-1998;	98US-00872088P;
XX	KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;		PR	02-JUN-1998;	98US-00876039P;
XX	KW	liver; drug screening; transgenic animal; genetic analysis;		PR	02-JUN-1998;	98US-00877539P;
XX	KW	antiarthritic; vulnery; gene therapy.		PR	03-JUN-1998;	98US-00878272P;
XX	KW			PR	04-JUN-1998;	98US-00880251P;
XX	KW			PR	04-JUN-1998;	98US-00880282P;
XX	KW			PR	04-JUN-1998;	98US-00880299P;
OS	XX	Homo sapiens.		PR	04-JUN-1998;	98US-00880333P;
XX	XX	US2003027263-A1.		PR	04-JUN-1998;	98US-00883282P;
PN	XX			PR	05-JUN-1998;	98US-00881679P;
PD	PD	06-FEB-2003.		PR	05-JUN-1998;	98US-00882022P;
PF	PF	18-JUN-2002; 2002US-00174572.		PR	05-JUN-1998;	98US-00882112P;
XX	PF			PR	05-JUN-1998;	98US-00882117P;
XX	PF			PR	09-JUN-1998;	98US-00886555P;
XX	PF			PR	10-JUN-1998;	98US-00887222P;
XX	PF			PR	10-JUN-1998;	98US-00887338P;
PR	18-SEP-1997;	97US-00592463P.		PR	10-JUN-1998;	98US-00887409P;
PR	18-SEP-1997;	97US-00592666P.		PR	10-JUN-1998;	98US-00888112P;
PR	17-OCT-1997;	97US-00622505P.		PR	10-JUN-1998;	98US-00888112P;
PR	21-OCT-1997;	97US-00634886P.		PR	10-JUN-1998;	98US-00888242P;
PR	24-OCT-1997;	97US-00631202P.		PR	10-JUN-1998;	98US-00888252P;
PR	24-OCT-1997;	97US-00631212P.		PR	10-JUN-1998;	98US-00888252P;
PR	28-OCT-1997;	97US-00635404P.		PR	11-JUN-1998;	98US-00888611P;
PR	28-OCT-1997;	97US-00635411P.		PR	11-JUN-1998;	98US-00888631P;
PR	28-OCT-1997;	97US-00635444P.		PR	11-JUN-1998;	98US-00888631P;
PR	28-OCT-1997;	97US-00635564P.		PR	11-JUN-1998;	98US-00888762P;
PR	29-OCT-1997;	97US-00637344P.		PR	12-JUN-1998;	98US-00890909P;
PR	29-OCT-1997;	97US-00638700P.		PR	12-JUN-1998;	98US-00891053P;
PR	31-OCT-1997;	97US-00641003P.		PR	16-JUN-1998;	98US-00895112P;
PR	31-OCT-1997;	97US-00653111P.		PR	16-JUN-1998;	98US-00895112P;
PR	13-NOV-1997;	97US-00666120P.		PR	17-JUN-1998;	98US-00895388P;
PR	21-NOV-1997;	97US-00666466P.		PR	17-JUN-1998;	98US-00895388P;
PR	24-NOV-1997;	97US-00667722P.		PR	17-JUN-1998;	98US-00895388P;
PR	24-NOV-1997;	97US-00669335P.		PR	17-JUN-1998;	98US-00895388P;
PR	11-DEC-1997;	97US-00694252P.		PR	17-JUN-1998;	98US-00895388P;
PR	12-DEC-1997;	97US-00694252P.		PR	17-JUN-1998;	98US-00895388P;
PR	17-DEC-1997;	97US-00698702P.		PR	17-JUN-1998;	98US-00895388P;
PR	18-DEC-1997;	97US-00698702P.		PR	17-JUN-1998;	98US-00895388P;
PR	10-MAR-1998;	98US-00774503P.		PR	18-JUN-1998;	98US-00899088P;
PR	11-MAR-1998;	98US-00776322P.		PR	18-JUN-1998;	98US-00899088P;
PR	11-MAR-1998;	98US-00776499P.		PR	19-JUN-1998;	98US-00899552P;
PR	20-MAR-1998;	98US-00788866P.		PR	19-JUN-1998;	98US-00899552P;
PR	20-MAR-1998;	98US-00789393P.		PR	22-JUN-1998;	98US-00902462P;
PR	27-MAR-1998;	98US-00796644P.		PR	22-JUN-1998;	98US-00902462P;
PR	27-MAR-1998;	98US-00796644P.		PR	22-JUN-1998;	98US-00902462P;
PR	31-MAR-1998;	98US-00801071P.		PR	22-JUN-1998;	98US-00902532P;
PR	31-MAR-1998;	98US-00801194P.		PR	22-JUN-1998;	98US-00902532P;
PR	01-APR-1998;	98US-00803272P.		PR	22-JUN-1998;	98US-00902532P;
PR	01-APR-1998;	98US-00803333P.		PR	22-JUN-1998;	98US-00902532P;
PR	08-APR-1998;	98US-00810499P.		PR	22-JUN-1998;	98US-00902549P;
PR	08-APR-1998;	98US-00810499P.		PR	22-JUN-1998;	98US-00902549P;
PR	09-APR-1998;	98US-00811070P.		PR	22-JUN-1998;	98US-00902549P;
PR	09-APR-1998;	98US-00811070P.		PR	22-JUN-1998;	98US-00902549P;
PR	15-APR-1998;	98US-00811355P.		PR	22-JUN-1998;	98US-00902549P;
PR	15-APR-1998;	98US-00818388P.		PR	22-JUN-1998;	98US-00902549P;
PR	21-APR-1998;	98US-00825688P.		PR	22-JUN-1998;	98US-00902549P;
PR	21-APR-1998;	98US-00825688P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98US-00902549P;
PR	22-APR-1998;	98US-00827649P.		PR	22-JUN-1998;	98

PR	01-JUL-1998;	98US-0091544P.	QY	61	IQKIYCYQLFSYNSGGEVNEQALKILSNVKNVGVYKPRRHSQIMTFRLLHKN	120
PR	02-JUL-1998;	98US-0091478P.	Db	61	IQKIYCYQLFSYNSGGEVNEQALKILSNVKNVGVYKPRRHSQIMTFRLLHKN	120
PR	02-JUL-1998;	98US-0091486P.	QY	121	LQEHFNSQDLVFLLLTPSIITSCSTRHLEHSLYKPKGLFHRVPLVWNLGMSQOLGYK	180
PR	02-JUL-1998;	98US-0091628P.	Db	121	LQEHFNSQDLVFLLLTPSIITSCSTRHLEHSLYKPKGLFHRVPLVWNLGMSQOLGYK	180
PR	04-JUL-1998;	98US-0094006P.	QY	181	TVSGSCMSTGFSRAVQTHSKFEEGSLKEVHKINEMVYASLOEELKICKKVEDSEQAV	240
PR	10-AUG-1998;	98US-0095998P.	Db	181	TVSGSCMSTGFSRAVQTHSKFEEGSLKEVHKINEMVYASLOEELKICKKVEDSEQAV	240
PR	17-AUG-1998;	98US-0096757P.	QY	241	DKLVKDVNRLKREIEKRRGAQICAAAREKNIQDPENIFLCOALRTFFPNSEFLHSCVMS	300
PR	17-AUG-1998;	98US-0096867P.	Db	241	DKLVKDVNRLKREIEKRRGAQICAAAREKNIQDPENIFLCOALRTFFPNSEFLHSCVMS	300
PR	17-AUG-1998;	98US-0096891P.	QY	301	LKRRHVSKSSCNVHHLVDVNLITLMEHTDIPASPASTPOIILKHALDLDLDRWQFKRS	360
PR	18-AUG-1998;	98US-0096949P.	Db	301	LKRRHVSKSSCNVHHLVDVNLITLMEHTDIPASPASTPOIILKHALDLDLDRWQFKRS	360
PR	18-AUG-1998;	98US-0097022P.	QY	361	RLLDTDQKRSKANTGSSNQDKASKKSSPETDEIEKMKGFGEYSRSPTF	409
PR	26-AUG-1998;	98US-0097974P.	Db	361	RLLDTDQKRSKANTGSSNQDKASKKSSPETDEIEKMKGFGEYSRSPTF	409
PR	26-AUG-1998;	98US-0098014P.	QY			
PR	01-SEP-1998;	98US-0098716P.	Db			
PR	01-SEP-1998;	98US-0098723P.	QY			
PR	02-SEP-1998;	98US-0098803P.	Db			
PR	02-SEP-1998;	98US-0098821P.	QY			
PR	09-SEP-1998;	98US-0098843P.	Db			
PR	10-SEP-1998;	98US-0099602P.	QY			
PR	10-SEP-1998;	98US-0099741P.	Db			
PR	10-SEP-1998;	98US-0099754P.	QY			
PR	10-SEP-1998;	98US-0099763P.	Db			
PR	15-SEP-1998;	98US-0099812P.	QY			
PR	16-SEP-1998;	98US-0100388P.	Db			
PR	16-SEP-1998;	98US-0100662P.	QY			
PR	16-SEP-1998;	98US-0100664P.	Db			
PR	16-SEP-1998;	98US-0101751P.	QY			
PR	16-SEP-1998;	98US-0101933P.	Db			
PR	17-SEP-1998;	98US-0100683P.	QY			
PR	17-SEP-1998;	98US-0100694P.	Db			
PR	17-SEP-1998;	98US-0100919P.	QY			
PR	17-SEP-1998;	98US-0100910P.	Db			
PR	18-SEP-1998;	98US-0100849P.	QY			
PR	18-SEP-1998;	98US-0101014P.	Db			
PR	18-SEP-1998;	98US-0101068P.	QY			
PR	23-SEP-1998;	98US-0101471P.	Db			
PR	23-SEP-1998;	98US-0101472P.	QY			
PR	23-SEP-1998;	98US-0101475P.	Db			
PR	23-SEP-1998;	98US-0101477P.	QY			
PR	24-SEP-1998;	98US-0101738P.	Db			
PR	24-SEP-1998;	98US-0101739P.	QY			
PR	24-SEP-1998;	98US-0101743P.	Db			
PR	25-SEP-1998;	98US-0101922P.	QY			
PR	25-SEP-1998;	98US-0101786P.	Db			
PR	29-SEP-1998;	98US-0102207P.	QY			
PR	29-SEP-1998;	98US-0102240P.	Db			
PR	29-SEP-1998;	98US-0102330P.	QY			
PR	29-SEP-1998;	98US-0102331P.	Db			
PR	30-SEP-1998;	98US-0102487P.	QY			
PR	30-SEP-1998;	98US-0102570P.	Db			
PR	30-SEP-1998;	98US-0102571P.	QY			
PR	01-OCT-1998;	98US-0102684P.	Db			
PR	01-OCT-1998;	98US-0102687P.	QY			

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MEGESTSAVLGGVGLALAFQHLNTSDTGEFLLGEVKGAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGGVGLALAFQHLNTSDTGEFLLGEVKGAKNSITDSQMDVVEVYITD 60

PR 22-MAR-2001; 2001US-00816744.  
PR 10-MAY-2001; 2001US-00854208.  
PR 10-MAY-2001; 2001US-00854280.  
PR 30-MAY-2001; 2001US-00870574.  
PR 01-JUN-2001; 2001WO-US017800.  
PR 05-JUN-2001; 2001US-00874503.  
PR 23-JUN-2001; 2001US-00863599.  
PR 18-JUL-2001; 2001US-00908827.  
PR 06-DEC-2001; 2001US-00006867.  
XX  
XX (GETH ) GENENTECH INC.  
PA  
PI Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;  
PI Grimaldi JC, Gurney AL, Watanabe CK, Wood WI;  
XX  
XX WPI; 2003-447383/42.  
DR N-PSDB; ACD45159.  
XX  
XX New isolated antibody specifically binding a PRO polypeptide, useful for  
PT the preparation of a medicament for treating disorders with the aberrant  
PT expression or activity of the PRO polypeptide, such as tumor conditions  
PT and cancer.  
XX  
XX Disclosure; Fig 22; 223pp; English.  
XX  
XX The invention relates to an antibody that binds to a secreted and  
CC transmembrane PRO polypeptide. The methods and compositions of the  
CC present invention are useful for the preparation of a medicament for the  
CC treatment of disorders associated with the aberrant expression or  
CC activity of the PRO polypeptide, such as tumor conditions and cancer.  
CC They can also be used to generate transgenic or knockout animals useful  
CC in the development and screening of therapeutically useful reagents. The  
CC PRO polypeptides and encoding nucleic acids can be used as molecular  
CC weight markers for protein electrophoresis, chromosome identification and  
CC tissue typing. The antibodies may be used in various diagnostic,  
CC competitive binding and/or immunoprecipitation assays. The present  
CC sequence represents the amino acid sequence of a secreted and  
CC transmembrane PRO polypeptide  
XX  
XX Sequence 409 AA;  
  
Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 MEGESTSAVLGFGALAFQHLNTSDTEGFLGVEKGEAKNSITDSQMDVVEVYITD 60  
Db 1 MEGESTSAVLGFGALAFQHLNTSDTEGFLGVEKGEAKNSITDSQMDVVEVYITD 60  
  
Qy 61 IQYIPCYQLFSPYNSGGEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHKN 120  
Db 61 IQYIPCYQLFSPYNSGGEVNEQALKILSNVKNVGVGKFRHSDQIMTFRERLLHKN 120  
  
Qy 121 LOEHFNSQDLVFLLLTPSIITESCSTRLEHSLYKPKGLFHRVPLVANLGMSEOLGYK 180  
Db 121 LOEHFNSQDLVFLLLTPSIITESCSTRLEHSLYKPKGLFHRVPLVANLGMSEOLGYK 180  
  
Qy 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLQELKSI CKKVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVASLQELKSI CKKVEDSEQAV 240  
  
Qy 241 DKLVDVNLRLKRIEKGKRGAIQAAREKNIOKDPQENIFLCOALRTFFNSFLHSCVMS 300  
Db 241 DKLVDVNLRLKRIEKGKRGAIQAAREKNIOKDPQENIFLCOALRTFFNSFLHSCVMS 300  
  
Qy 301 LKNRHVS KSNYNHLDVVDNLTLMVEHTDIPEASPASTPQIIKHKALDLDLDRWQFKKS 360  
Db 301 LKNRHVS KSNYNHLDVVDNLTLMVEHTDIPEASPASTPQIIKHKALDLDLDRWQFKKS 360  
  
Qy 361 RLDTQDKRKANTGSSNQKASKMSSPETDEIEKMKGGEYSRSPTF 409  
Db 361 RLDTQDKRKANTGSSNQKASKMSSPETDEIEKMKGGEYSRSPTF 409

RESULT 91  
ABR68752  
ID ABR68752 standard; protein; 409 AA.  
XX  
AC ABR68752;  
XX  
XX 11-AUG-2003 (first entry)  
XX  
DE Human secreted polypeptide PRO1013, SEQ ID NO:134.  
XX  
XX Human; PRO; secreted protein; transmembrane protein;  
KW extracellular domain; tumour necrosis factor-alpha; TNF-alpha;  
KW chondrocyte; proliferation; differentiation; cartilage disorder;  
KW bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;  
KW adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;  
KW liver; drug screening; transgenic animal; genetic analysis;  
KW antiarthritic; vulnery; gene therapy.  
XX  
OS Homo sapiens.  
XX  
XX US2003027271-A1.  
XX  
XX 06-FEB-2003.  
XX  
XX 21-JUN-2002; 2002US-00176488.  
XX  
XX 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0082250P.  
PR 21-OCT-1997; 97US-0083486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0083544P.  
PR 28-OCT-1997; 97US-0083564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0086466P.  
PR 24-NOV-1997; 97US-0086772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.



PR	06-MAY-1998;	98US-0084414P.	PR	04-AUG-1998;	98US-0095282P.
PR	07-MAY-1998;	98US-0084639P.	PR	10-AUG-1998;	98US-0095998P.
PR	07-MAY-1998;	98US-0084640P.	PR	10-AUG-1998;	98US-0096012P.
PR	07-MAY-1998;	98US-0084643P.	PR	17-AUG-1998;	98US-0096757P.
PR	15-MAY-1998;	98US-0085573P.	PR	17-AUG-1998;	98US-0096766P.
PR	15-MAY-1998;	98US-0085580P.	PR	17-AUG-1998;	98US-0096867P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096891P.
PR	15-MAY-1998;	98US-0085700P.	PR	17-AUG-1998;	98US-0096897P.
PR	18-MAY-1998;	98US-0086023P.	PR	18-AUG-1998;	98US-0096949P.
PR	18-MAY-1998;	98US-0086392P.	PR	18-AUG-1998;	98US-0096959P.
PR	22-MAY-1998;	98US-0086486P.	PR	26-AUG-1998;	98US-0097022P.
PR	22-MAY-1998;	98US-0087098P.	PR	26-AUG-1998;	98US-0097352P.
PR	28-MAY-1998;	98US-0087208P.	PR	26-AUG-1998;	98US-0097355P.
PR	02-JUN-1998;	98US-0087603P.	PR	26-AUG-1998;	98US-0097517P.
PR	02-JUN-1998;	98US-0087753P.	PR	26-AUG-1998;	98US-0097974P.
PR	03-JUN-1998;	98US-0087827P.	PR	26-AUG-1998;	98US-0098014P.
PR	04-JUN-1998;	98US-0088025P.	PR	01-SEP-1998;	98US-0098716P.
PR	04-JUN-1998;	98US-0088028P.	PR	02-SEP-1998;	98US-0098723P.
PR	04-JUN-1998;	98US-0088029P.	PR	02-SEP-1998;	98US-0098803P.
PR	04-JUN-1998;	98US-0088033P.	PR	02-SEP-1998;	98US-0098821P.
PR	04-JUN-1998;	98US-0088326P.	PR	02-SEP-1998;	98US-0098843P.
PR	05-JUN-1998;	98US-0088167P.	PR	09-SEP-1998;	98US-0099602P.
PR	05-JUN-1998;	98US-0088202P.	PR	10-SEP-1998;	98US-0099741P.
PR	05-JUN-1998;	98US-0088212P.	PR	10-SEP-1998;	98US-0099754P.
PR	05-JUN-1998;	98US-0088217P.	PR	10-SEP-1998;	98US-0099812P.
PR	09-JUN-1998;	98US-0088655P.	PR	15-SEP-1998;	98US-0100388P.
PR	10-JUN-1998;	98US-0088722P.	PR	15-SEP-1998;	98US-0100684P.
PR	10-JUN-1998;	98US-0088738P.	PR	16-SEP-1998;	98US-0100862P.
PR	10-JUN-1998;	98US-0088740P.	PR	16-SEP-1998;	98US-0100864P.
PR	10-JUN-1998;	98US-0088811P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088824P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088825P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088826P.	PR	17-SEP-1998;	98US-0100683P.
PR	11-JUN-1998;	98US-0088861P.	PR	17-SEP-1998;	98US-0100684P.
PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100919P.
PR	11-JUN-1998;	98US-0088876P.	PR	17-SEP-1998;	98US-0100930P.
PR	12-JUN-1998;	98US-0089090P.	PR	18-SEP-1998;	98US-0100849P.
PR	12-JUN-1998;	98US-0089105P.	PR	18-SEP-1998;	98US-0101014P.
PR	16-JUN-1998;	98US-0089512P.	PR	18-SEP-1998;	98US-0101068P.
PR	16-JUN-1998;	98US-0089514P.	PR	23-SEP-1998;	98US-0101471P.
PR	17-JUN-1998;	98US-0089538P.	PR	23-SEP-1998;	98US-0101472P.
PR	17-JUN-1998;	98US-0089558P.	PR	23-SEP-1998;	98US-0101475P.
PR	17-JUN-1998;	98US-0089563P.	PR	23-SEP-1998;	98US-0101477P.
PR	18-JUN-1998;	98US-0089908P.	PR	24-SEP-1998;	98US-0101738P.
PR	18-JUN-1998;	98US-0089952P.	PR	24-SEP-1998;	98US-0101739P.
PR	22-JUN-1998;	98US-0090246P.	PR	24-SEP-1998;	98US-0101743P.
PR	22-JUN-1998;	98US-0090252P.	PR	24-SEP-1998;	98US-0101922P.
PR	22-JUN-1998;	98US-0090254P.	PR	25-SEP-1998;	98US-0101786P.
PR	24-JUN-1998;	98US-0090429P.	PR	25-SEP-1998;	98US-0102207P.
PR	24-JUN-1998;	98US-0090435P.	PR	29-SEP-1998;	98US-0102240P.
PR	24-JUN-1998;	98US-0090441P.	PR	29-SEP-1998;	98US-0102330P.
PR	24-JUN-1998;	98US-0090461P.	PR	29-SEP-1998;	98US-0102331P.
PR	24-JUN-1998;	98US-0090535P.	PR	30-SEP-1998;	98US-0102487P.
PR	24-JUN-1998;	98US-0090540P.	PR	30-SEP-1998;	98US-0102570P.
PR	24-JUN-1998;	98US-0090542P.	PR	30-SEP-1998;	98US-0102571P.
PR	25-JUN-1998;	98US-0090678P.	PR	01-OCT-1998;	98US-0102684P.
PR	25-JUN-1998;	98US-0090688P.	PR	01-OCT-1998;	98US-0102687P.
PR	25-JUN-1998;	98US-0090690P.			
PR	25-JUN-1998;	98US-0090694P.			
PR	25-JUN-1998;	98US-0090695P.			
PR	25-JUN-1998;	98US-0090896P.			
PR	26-JUN-1998;	98US-00105413.			
PR	26-JUN-1998;	98US-0090862P.			
PR	26-JUN-1998;	98US-0090863P.			
PR	26-JUN-1998;	98US-0091010P.			
PR	01-JUL-1998;	98US-0091359P.			
PR	01-JUL-1998;	98US-0091544P.			
PR	02-JUL-1998;	98US-0091478P.			
PR	02-JUL-1998;	98US-0091486P.			
PR	02-JUL-1998;	98US-0091626P.			
PR	02-JUL-1998;	98US-0091628P.			
PR	02-JUL-1998;	98US-0091632P.			
PR	24-JUL-1998;	98US-0094006P.			

Query Match. 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEGESTAVLGGFVLGALAFQHLNTSDTEGFLLGVEYKGAKNISITDSQDDVEVYITD	60
Db	1	MEGESTAVLGGFVLGALAFQHLNTSDTEGFLLGVEYKGAKNISITDSQDDVEVYITD	60
Qy	61	IQKYPICYQLFSPFYNSSGEVNEQAKKILSNVKKNVGVGWYKFRHSHQIMTFRELLHKN	120
Db	61	IQKYPICYQLFSPFYNSSGEVNEQAKKILSNVKKNVGVGWYKFRHSHQIMTFRELLHKN	120
Qy	121	LOEHFSNODLVFLLLTPSIITESCSTRHLSYKPKQGLFHRVPLVAVANLGMSEQLGYK	180
Db	121	LOEHFSNODLVFLLLTPSIITESCSTRHLSYKPKQGLFHRVPLVAVANLGMSEQLGYK	180

QY 181 TVSGSCMTGFRVQTHSSKEFEEDGSLKEVHKINEMVASYLOELKICKYVEDSEQAV 240  
Db 181 TVSGSCMTGFRVQTHSSKEFEEDGSLKEVHKINEMVASYLOELKICKYVEDSEQAV 240  
QY 241 DKLVKDVNLKREIEKRRGAQICAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
Db 241 DKLVKDVNLKREIEKRRGAQICAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
QY 301 LKNRHVSKSCNNYHLDVVDNLTLWVHTDIPASPASTPOIHKKALDLDLDRWQFKRS 360  
Db 301 LKNRHVSKSCNNYHLDVVDNLTLWVHTDIPASPASTPOIHKKALDLDLDRWQFKRS 360  
QY 361 RLDDTQDKSKANTSSNODKASKMSSPETDEIEKMKGFGEYSRSPTF 409  
Db 361 RLDDTQDKSKANTSSNODKASKMSSPETDEIEKMKGFGEYSRSPTF 409

RESULT 92  
ABO06568  
ID ABO06568 standard; protein; 409 AA.  
XX  
AC ABO06568;  
XX  
DT 17-AUG-2003 (first entry)  
XX  
DE Human secreted/transmembrane protein (PRO) #67.  
XX  
KW Human; secreted and transmembrane protein; PRO; TNF-alpha;  
KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;  
KW tissue typing; adrenal tumour; lung tumour; colon tumour; breast tumour;  
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.  
XX  
OS Homo sapiens.  
XX  
PN US2003036125-A1.  
XX  
PD 20-FEB-2003.  
XX  
PF 26-JUN-2002; 2002US-00180999.  
XX  
18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 31-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077649P.  
PR 20-MAR-1998; 98US-0078886P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 27-MAR-1998; 98US-0079664P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 31-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.

PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084141P.  
PR 06-MAY-1998; 98US-0084366P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 12-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.

PR	06-OCT-1998;	98US-0103449P.
Query Match	100.0%;	Score 409; DB 6; Length 409;
Best Local Similarity	100.0%;	Pred. No. 0;
Matches 409;	Conservative	0; Mismatches 0; Indels 0; Gaps 0;
QY	1	MEGESTSAVLGSGVLGALAFQHLNLTDSDETEGFLGGEVKGAEKNSITDSQMDDEVEVYITD 60
DB	1	MEGESTSAVLGSGVLGALAFQHLNLTDSDETEGFLGGEVKGAEKNSITDSQMDDEVEVYITD 60
QY	61	IOKIYPCVQLSFYNSGEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRELLHKN 120
DB	61	IOKIYPCVQLSFYNSGEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRELLHKN 120
QY	121	LOEHFNSQDLVFLLLTPSIITTESCSTRLEHSLYKPKQGLFHRVPLVYVNLGMSQGLGYK 180
DB	121	LOEHFNSQDLVFLLLTPSIITTESCSTRLEHSLYKPKQGLFHRVPLVYVNLGMSQGLGYK 180
QY	181	TVSGSCMTGFSRAVOTVHSSKFFEDGSLKVKHKNEMYASIQBELKSIICKVDESEAV 240
DB	181	TVSGSCMTGFSRAVOTVHSSKFFEDGSLKVKHKNEMYASIQBELKSIICKVDESEAV 240
QY	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPQENIFLCOAARTFPNPFSEFLHSCVMS 300
DB	241	DKLVKDVNRLKREIEKRRGAQIQAAAREKNIQKDPQENIFLCOAARTFPNPFSEFLHSCVMS 300
QY	301	LKNRHVSKSSCNVNHLDVNDLTLVHEHTDIPASASTTQIIKHKALDLDWRQFKRS 360
DB	301	LKNRHVSKSSCNVNHLDVNDLTLVHEHTDIPASASTTQIIKHKALDLDWRQFKRS 360
QY	361	RLLEDTQDKRSKANTGSSNQDKASKVSSPETDEEIEKMGFGYKSRPTF 409
DB	361	RLLEDTQDKRSKANTGSSNQDKASKVSSPETDEEIEKMGFGYKSRPTF 409
RESULT 93		
ABR99113		
ID	ABR99113	standard; protein; 409 AA.
XX	XX	
AC	ABR99113;	
XX	XX	
DT	17-SEP-2003	(first entry)
XX	XX	
DE	Human	secreted polypeptide PRO1013, SEQ ID NO:134.
XX	XX	
KW	Human; PRO; secreted protein; transmembrane protein; TNF-alpha;	
KW	extracellular domain; tumour necrosis factor-alpha; TNF-alpha;	
KW	chondrocyte; proliferation; differentiation; cartilage disorder;	
KW	bone disorder; arthritis; sports injury; cancer; tumour; diagnosis;	
KW	adrenal tumour; lung; colon; breast; prostate; kidney; rectum; cervix;	
KW	liver; drug screening; transgenic animal; genetic analysis;	
KW	antiathritic; vulnerary; gene therapy.	
XX	XX	
OS	Homo sapiens.	
XX	XX	
PN	US2003040068-A1.	
XX	XX	
PD	27-FEB-2003.	
XX	XX	
PF	28-JUN-2002;	2002US-00184625.
XX	XX	
PR	18-SEP-1997;	97US-0059263P.
PR	18-SEP-1997;	97US-0059266P.
PR	17-OCT-1997;	97US-0062250P.
PR	21-OCT-1997;	97US-0063486P.
PR	24-OCT-1997;	97US-0063120P.
PR	24-OCT-1997;	97US-0063121P.
PR	28-OCT-1997;	97US-0063540P.
PR	28-OCT-1997;	97US-0063541P.
PR	28-OCT-1997;	97US-0063544P.
PR	28-OCT-1997;	97US-0063564P.
PR	29-OCT-1997;	97US-0063734P.
PR	31-OCT-1997;	97US-0063870P.

PR	31-OCT-1997;	97US-0064103P.	PR	16-JUN-1998;	98US-0089514P.
PR	13-NOV-1997;	97US-0065311P.	PR	17-JUN-1998;	98US-0089538P.
PR	21-NOV-1997;	97US-00661202.	PR	17-JUN-1998;	98US-0089598P.
PR	24-NOV-1997;	97US-0066466P.	PR	17-JUN-1998;	98US-0089653P.
PR	24-NOV-1997;	97US-0066772P.	PR	18-JUN-1998;	98US-0089908P.
PR	11-DEC-1997;	97US-0069333P.	PR	18-JUN-1998;	98US-0089952P.
PR	12-DEC-1997;	97US-0069425P.	PR	22-JUN-1998;	98US-0090246P.
PR	17-DEC-1997;	97US-0069870P.	PR	22-JUN-1998;	98US-0090252P.
PR	18-DEC-1997;	97US-00698017P.	PR	22-JUN-1998;	98US-0090254P.
PR	10-MAR-1998;	98US-0077450P.	PR	24-JUN-1998;	98US-0090429P.
PR	11-MAR-1998;	98US-0077632P.	PR	24-JUN-1998;	98US-0090435P.
PR	11-MAR-1998;	98US-0077649P.	PR	24-JUN-1998;	98US-0090444P.
PR	20-MAR-1998;	98US-0078886P.	PR	24-JUN-1998;	98US-0090461P.
PR	20-MAR-1998;	98US-0078939P.	PR	24-JUN-1998;	98US-0090535P.
PR	27-MAR-1998;	98US-0079664P.	PR	24-JUN-1998;	98US-0090540P.
PR	27-MAR-1998;	98US-0079664P.	PR	25-JUN-1998;	98US-0090676P.
PR	31-MAR-1998;	98US-0080107P.	PR	25-JUN-1998;	98US-0090678P.
PR	31-MAR-1998;	98US-0080194P.	PR	25-JUN-1998;	98US-0090688P.
PR	01-APR-1998;	98US-0080327P.	PR	25-JUN-1998;	98US-0090690P.
PR	01-APR-1998;	98US-0080333P.	PR	25-JUN-1998;	98US-0090694P.
PR	08-APR-1998;	98US-0081049P.	PR	25-JUN-1998;	98US-0090695P.
PR	08-APR-1998;	98US-0081070P.	PR	25-JUN-1998;	98US-0090696P.
PR	09-APR-1998;	98US-0081193P.	PR	26-JUN-1998;	98US-0090596P.
PR	15-APR-1998;	98US-0081838P.	PR	26-JUN-1998;	98US-0090541P.
PR	21-APR-1998;	98US-0082568P.	PR	26-JUN-1998;	98US-0090862P.
PR	21-APR-1998;	98US-0082569P.	PR	26-JUN-1998;	98US-0090863P.
PR	22-APR-1998;	98US-0082704P.	PR	26-JUN-1998;	98US-0091010P.
PR	22-APR-1998;	98US-0082797P.	PR	01-JUL-1998;	98US-0091359P.
PR	28-APR-1998;	98US-0083322P.	PR	01-JUL-1998;	98US-0091544P.
PR	29-APR-1998;	98US-0083493P.	PR	02-JUL-1998;	98US-0091478P.
PR	29-APR-1998;	98US-0083496P.	PR	02-JUL-1998;	98US-0091486P.
PR	29-APR-1998;	98US-0083499P.	PR	02-JUL-1998;	98US-0091626P.
PR	29-APR-1998;	98US-0083559P.	PR	02-JUL-1998;	98US-0091628P.
PR	05-MAY-1998;	98US-0084366P.	PR	02-JUL-1998;	98US-0091632P.
PR	06-MAY-1998;	98US-0084414P.	PR	24-JUL-1998;	98US-0094006P.
PR	07-MAY-1998;	98US-0084633P.	PR	04-AUG-1998;	98US-0095282P.
PR	07-MAY-1998;	98US-0084640P.	PR	10-AUG-1998;	98US-0095398P.
PR	07-MAY-1998;	98US-0084643P.	PR	10-AUG-1998;	98US-0096012P.
PR	15-MAY-1998;	98US-0085579P.	PR	17-AUG-1998;	98US-0096757P.
PR	15-MAY-1998;	98US-0085580P.	PR	17-AUG-1998;	98US-0096766P.
PR	15-MAY-1998;	98US-0085582P.	PR	17-AUG-1998;	98US-0096867P.
PR	15-MAY-1998;	98US-0085700P.	PR	17-AUG-1998;	98US-0096891P.
PR	18-MAY-1998;	98US-0086023P.	PR	18-AUG-1998;	98US-0096897P.
PR	22-MAY-1998;	98US-0086392P.	PR	18-AUG-1998;	98US-0096949P.
PR	22-MAY-1998;	98US-0086486P.	PR	18-AUG-1998;	98US-0096959P.
PR	28-MAY-1998;	98US-0087098P.	PR	26-AUG-1998;	98US-0097022P.
PR	28-MAY-1998;	98US-0087209P.	PR	26-AUG-1998;	98US-0097952P.
PR	02-JUN-1998;	98US-0087603P.	PR	26-AUG-1998;	98US-0097954P.
PR	02-JUN-1998;	98US-0087753P.	PR	26-AUG-1998;	98US-0097971P.
PR	03-JUN-1998;	98US-0087827P.	PR	26-AUG-1998;	98US-0097971P.
PR	04-JUN-1998;	98US-0088023P.	PR	26-AUG-1998;	98US-0098014P.
PR	04-JUN-1998;	98US-0088029P.	PR	01-SEP-1998;	98US-0098716P.
PR	04-JUN-1998;	98US-0088033P.	PR	01-SEP-1998;	98US-0098723P.
PR	04-JUN-1998;	98US-0088326P.	PR	02-SEP-1998;	98US-0098803P.
PR	05-JUN-1998;	98US-0088167P.	PR	02-SEP-1998;	98US-0098821P.
PR	05-JUN-1998;	98US-0088202P.	PR	02-SEP-1998;	98US-0098843P.
PR	05-JUN-1998;	98US-0088212P.	PR	09-SEP-1998;	98US-0099602P.
PR	05-JUN-1998;	98US-0088217P.	PR	10-SEP-1998;	98US-0099741P.
PR	09-JUN-1998;	98US-0088655P.	PR	10-SEP-1998;	98US-0099754P.
PR	10-JUN-1998;	98US-0088722P.	PR	10-SEP-1998;	98US-0099763P.
PR	10-JUN-1998;	98US-0088738P.	PR	10-SEP-1998;	98US-0099812P.
PR	10-JUN-1998;	98US-0088740P.	PR	15-SEP-1998;	98US-0100388P.
PR	10-JUN-1998;	98US-0088811P.	PR	16-SEP-1998;	98US-0100662P.
PR	10-JUN-1998;	98US-0088824P.	PR	16-SEP-1998;	98US-0100664P.
PR	10-JUN-1998;	98US-0088825P.	PR	16-SEP-1998;	98US-0101751P.
PR	10-JUN-1998;	98US-0088826P.	PR	16-SEP-1998;	98US-0101751P.
PR	11-JUN-1998;	98US-0088861P.	PR	17-SEP-1998;	98US-0100683P.
PR	11-JUN-1998;	98US-0088863P.	PR	17-SEP-1998;	98US-0100684P.
PR	11-JUN-1998;	98US-0088876P.	PR	17-SEP-1998;	98US-0100919P.
PR	12-JUN-1998;	98US-0089090P.	PR	17-SEP-1998;	98US-0100930P.
PR	12-JUN-1998;	98US-0089105P.	PR	18-SEP-1998;	98US-0100849P.
PR	16-JUN-1998;	98US-0089512P.	PR	18-SEP-1998;	98US-0101014P.
PR			PR	18-SEP-1998;	98US-0101068P.

PR	23-SEP-1998;	98US-0101471P.
PR	23-SEP-1998;	98US-0101472P.
PR	23-SEP-1998;	98US-0101475P.
PR	23-SEP-1998;	98US-0101477P.
PR	23-SEP-1998;	98US-0101738P.
PR	24-SEP-1998;	98US-0101739P.
PR	24-SEP-1998;	98US-0101743P.
PR	24-SEP-1998;	98US-0101743P.
PR	24-SEP-1998;	98US-0101922P.
PR	25-SEP-1998;	98US-0101786P.
PR	29-SEP-1998;	98US-0102207P.
PR	29-SEP-1998;	98US-0102240P.
PR	29-SEP-1998;	98US-0102330P.
PR	29-SEP-1998;	98US-0102331P.
PR	30-SEP-1998;	98US-0102487P.
PR	30-SEP-1998;	98US-0102570P.
PR	30-SEP-1998;	98US-0102571P.
PR	01-OCT-1998;	98US-0102684P.
PR	01-OCT-1998;	98US-0102687P.

Query Match            100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity   100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MEGESTSAVLGSGFVILGALAQHLNTDSDTEGFLGVKGEAKNSITDSOMDDVEVVYTID	60
DB	1	MEGESTSAVLGSGFVILGALAQHLNTDSDTEGFLGVKGEAKNSITDSOMDDVEVVYTID	60
QY	61	IQKIYPCYQLFSFYNSGGEVNEQALKIILSNVKKNVGVYKFRHSDQIMTFRELLHK	120
DB	61	IQKIYPCYQLFSFYNSGGEVNEQALKIILSNVKKNVGVYKFRHSDQIMTFRELLHK	120
QY	121	LQEHFSNQDLVFLLTTSITESCSTHERLEHSLYKPQGLHRVPVLVANLGMSEQLGYK	180
DB	121	LQEHFSNQDLVFLLTTSITESCSTHERLEHSLYKPQGLHRVPVLVANLGMSEQLGYK	180
QY	181	TVSGCMGTGFSRAVOHTSHSKFFEDGSLKEVHKINEMYASIOELKSICKVEDSEQA	240
DB	181	TVSGCMGTGFSRAVOHTSHSKFFEDGSLKEVHKINEMYASIOELKSICKVEDSEQA	240
QY	241	DKLVKDVRNLKREIEKERGAQIOAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
DB	241	DKLVKDVRNLKREIEKERGAQIOAAEKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300
QY	301	LKNRHVSKSSCNYNHHLDVDNLTLMVEHTDIPEAGPASTPOIIKHKALDLDLRWQFKRS	360
DB	301	LKNRHVSKSSCNYNHHLDVDNLTLMVEHTDIPEAGPASTPOIIKHKALDLDLRWQFKRS	360
QY	361	RLLDTQDKRKSANTGSSNQDKASKMSPETDEEIKMKCFGBYSRSPTF	409
DB	361	RLLDTQDKRKSANTGSSNQDKASKMSPETDEEIKMKCFGBYSRSPTF	409

RESULT 94  
 ABU56997  
 ID ABU56997 standard; protein; 409 AA.  
 XX  
 AC ABU56997;  
 DT  
 DT 04-APR-2003 (first entry)  
 XX  
 DE Human PRO polypeptide #67.  
 XX  
 KW Human; PRO; tumour necrosis factor-alpha; blood; cancer;  
 KW chondrocyte cell; tumour; adrenal tumour; lung; colon; breast; prostate;  
 KW kidney; rectum; cervix; liver; bone disorder; cartilage disorder;  
 KW arthritis; sports injury; genetic disorder; antiarthritic; vulnerary.  
 XX  
 OS Homo sapiens.  
 XX  
 FN US2003027280-A1.  
 XX  
 PD 06-FEB-2003.  
 XX

RESULT 94

ABU56997

ID ABU56997 standard; protein; 409 AA.

XX  
AC

XX  
DT 04-APR-2003 (first entry)

XX  
DE Human pro polypeptide #67,

XX  
KW Human; PRO; tumour necrosis

KW chondrocyte cell; tumour;  
KW kidney; rectum; cervix; li

KW arthritis; sports injury;  
XX

OS Homo sapiens.  
XX

PN US2003027280-A1.  
XX

PD  
XX  
06-FEB-2003.

PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088739P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089103P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089308P.  
PR 19-JUN-1998; 98US-0089352P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 28-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095398P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 18-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0098960P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088739P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089103P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089308P.  
PR 19-JUN-1998; 98US-0089352P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 28-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095398P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 18-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0098960P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.

Query Match 100.0%; Score 409, DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 MEGESTSAVLGGFVLGALAFQHLNLTSDTEGFLGEGVKEAKNSITDSQMDDEVVYITD 60  
Db 1 MEGESTSAVLGGFVLGALAFQHLNLTSDTEGFLGEGVKEAKNSITDSQMDDEVVYITD 60  
Qy 61 IQYIPCYQLFSPYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFERLLHKN 120  
Db 61 IQYIPCYQLFSPYNSGVEVNEQALKILSNVKNVGVGKFRHSDQIMTFERLLHKN 120  
Qy 121 LOEHFSNODLVFLLLTPSIITESCSTHRLHSYKPKQGLFHRVPLVANLGMSEQLGYK 180  
Db 121 LOEHFSNODLVFLLLTPSIITESCSTHRLHSYKPKQGLFHRVPLVANLGMSEQLGYK 180  
Qy 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEELKSI CKKVEDSEQAV 240  
Db 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMYASLOEELKSI CKKVEDSEQAV 240  
Qy 241 DKLYKDVNRLKRETEKERGAQIOAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
Db 241 DKLYKDVNRLKRETEKERGAQIOAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
Qy 301 LKNRHVSKSCNYYNHLDVVNDLTLVMEHTDIPASPASTPQIKKXALDLDORWQPKRS 360  
Db 301 LKNRHVSKSCNYYNHLDVVNDLTLVMEHTDIPASPASTPQIKKXALDLDORWQPKRS 360  
Qy 361 RLDTQDKRSKANTGSSNQDKASKMSSPETDEEIEKMKGGEYSRSTPF 409  
Db 361 RLDTQDKRSKANTGSSNQDKASKMSSPETDEEIEKMKGGEYSRSTPF 409  
RESULT 95  
ABU85949  
ID ABU85949 standard; protein; 409 AA.  
XX

AC ABUS5949;  
XX  
DT 01-JUL-2003 (first entry)  
XX  
DE Novel human secreted and transmembrane protein PRO1013.  
XX  
KW Human; secreted and transmembrane protein; PRO; chromosome mapping;  
KW gene mapping; transgenic animal; knockout animal; tissue typing; tumour;  
KW chondrocyte cell proliferation; gene therapy;  
KW chondrocyte cell differentiation; tumour necrosis factor-alpha release.  
XX  
OS Homo sapiens.  
XX  
PN US2003022300-A1.  
XX  
PD 30-JAN-2003.  
XX  
XX 25-JUN-2002; 2002US-00180552.  
XX 18-SEP-1997; 97US-0059263P.  
PR 18-SEP-1997; 97US-0059266P.  
PR 17-OCT-1997; 97US-0062250P.  
PR 21-OCT-1997; 97US-0063486P.  
PR 24-OCT-1997; 97US-0063120P.  
PR 24-OCT-1997; 97US-0063121P.  
PR 28-OCT-1997; 97US-0063540P.  
PR 28-OCT-1997; 97US-0063541P.  
PR 28-OCT-1997; 97US-0063544P.  
PR 28-OCT-1997; 97US-0063564P.  
PR 29-OCT-1997; 97US-0063734P.  
PR 29-OCT-1997; 97US-0063870P.  
PR 31-OCT-1997; 97US-0064103P.  
PR 13-NOV-1997; 97US-0065311P.  
PR 21-NOV-1997; 97US-0066120P.  
PR 24-NOV-1997; 97US-0066466P.  
PR 24-NOV-1997; 97US-0066772P.  
PR 11-DEC-1997; 97US-0069335P.  
PR 12-DEC-1997; 97US-0069425P.  
PR 17-DEC-1997; 97US-0069870P.  
PR 18-DEC-1997; 97US-0068017P.  
PR 10-MAR-1998; 98US-0077450P.  
PR 11-MAR-1998; 98US-0077632P.  
PR 11-MAR-1998; 98US-0077639P.  
PR 20-MAR-1998; 98US-0078939P.  
PR 20-MAR-1998; 98US-0079654P.  
PR 27-MAR-1998; 98US-0079786P.  
PR 27-MAR-1998; 98US-0080107P.  
PR 31-MAR-1998; 98US-0080194P.  
PR 01-APR-1998; 98US-0080327P.  
PR 01-APR-1998; 98US-0080333P.  
PR 08-APR-1998; 98US-0081049P.  
PR 08-APR-1998; 98US-0081070P.  
PR 09-APR-1998; 98US-0081195P.  
PR 15-APR-1998; 98US-0081838P.  
PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 28-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 05-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 07-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086392P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087609P.  
PR 02-JUN-1998; 98US-0087759P.  
PR 02-JUN-1998; 98US-0087827P.  
PR 03-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088029P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 04-JUN-1998; 98US-0088326P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090890P.  
PR 25-JUN-1998; 98US-0090894P.  
PR 25-JUN-1998; 98US-0090895P.  
PR 25-JUN-1998; 98US-0090966P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.





PR 21-APR-1998; 98US-0082568P.  
PR 21-APR-1998; 98US-0082569P.  
PR 22-APR-1998; 98US-0082704P.  
PR 22-APR-1998; 98US-0082797P.  
PR 28-APR-1998; 98US-0083322P.  
PR 29-APR-1998; 98US-0083495P.  
PR 29-APR-1998; 98US-0083496P.  
PR 29-APR-1998; 98US-0083499P.  
PR 29-APR-1998; 98US-0083559P.  
PR 05-MAY-1998; 98US-0084366P.  
PR 06-MAY-1998; 98US-0084414P.  
PR 07-MAY-1998; 98US-0084639P.  
PR 07-MAY-1998; 98US-0084640P.  
PR 15-MAY-1998; 98US-0084643P.  
PR 15-MAY-1998; 98US-0085579P.  
PR 15-MAY-1998; 98US-0085580P.  
PR 15-MAY-1998; 98US-0085582P.  
PR 15-MAY-1998; 98US-0085700P.  
PR 18-MAY-1998; 98US-0086023P.  
PR 22-MAY-1998; 98US-0086332P.  
PR 22-MAY-1998; 98US-0086486P.  
PR 28-MAY-1998; 98US-0087098P.  
PR 28-MAY-1998; 98US-0087208P.  
PR 02-JUN-1998; 98US-0087599P.  
PR 03-JUN-1998; 98US-0087827P.  
PR 04-JUN-1998; 98US-0088025P.  
PR 04-JUN-1998; 98US-0088028P.  
PR 04-JUN-1998; 98US-0088033P.  
PR 04-JUN-1998; 98US-0088036P.  
PR 05-JUN-1998; 98US-0088167P.  
PR 05-JUN-1998; 98US-0088202P.  
PR 05-JUN-1998; 98US-0088212P.  
PR 05-JUN-1998; 98US-0088217P.  
PR 09-JUN-1998; 98US-0088655P.  
PR 10-JUN-1998; 98US-0088722P.  
PR 10-JUN-1998; 98US-0088738P.  
PR 10-JUN-1998; 98US-0088740P.  
PR 10-JUN-1998; 98US-0088811P.  
PR 10-JUN-1998; 98US-0088824P.  
PR 10-JUN-1998; 98US-0088825P.  
PR 10-JUN-1998; 98US-0088826P.  
PR 11-JUN-1998; 98US-0088861P.  
PR 11-JUN-1998; 98US-0088863P.  
PR 11-JUN-1998; 98US-0088876P.  
PR 12-JUN-1998; 98US-0089090P.  
PR 12-JUN-1998; 98US-0089105P.  
PR 16-JUN-1998; 98US-0089512P.  
PR 16-JUN-1998; 98US-0089514P.  
PR 17-JUN-1998; 98US-0089538P.  
PR 17-JUN-1998; 98US-0089598P.  
PR 17-JUN-1998; 98US-0089653P.  
PR 18-JUN-1998; 98US-0089908P.  
PR 19-JUN-1998; 98US-0089952P.  
PR 22-JUN-1998; 98US-0090246P.  
PR 22-JUN-1998; 98US-0090252P.  
PR 22-JUN-1998; 98US-0090254P.  
PR 24-JUN-1998; 98US-0090423P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090444P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 25-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.

PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095598P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096757P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 18-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 02-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099763P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 15-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101068P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101786P.  
PR 25-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 30-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102684P.  
PR 01-OCT-1998; 98US-0102687P.  
PR 02-OCT-1998; 98US-0102655P.  
PR 06-OCT-1998; 98US-0103258P.

Query Match 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred.No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY	1	MEGESTAVLSGFLVGLALAFQHLNTDSDTEGFLGEVKGAKNSITDSQMDDEVVYTIID	60	PR	10-MAR-1998;	98US-0077450P.
Db	1	MEGESTAVLSGFLVGLALAFQHLNTDSDTEGFLGEVKGAKNSITDSQMDDEVVYTIID	60	PR	11-MAR-1998;	98US-0077632P.
QY	61	IQKIYPCVQLSFYNSGEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRERLLHKN	120	PR	20-MAR-1998;	98US-0077849P.
Db	61	IQKIYPCVQLSFYNSGEVNEQALKILSNVKNVGVYKFRHSQDQIMTFRERLLHKN	120	PR	21-MAR-1998;	98US-0078939P.
QY	121	LOEHFSNQDLVFLLLTPSIITESCSTHLEHSLYKPKQGLFHRVPLVNVANLGMSEQLGYK	180	PR	27-MAR-1998;	98US-0079664P.
Db	121	LOEHFSNQDLVFLLLTPSIITESCSTHLEHSLYKPKQGLFHRVPLVNVANLGMSEQLGYK	180	PR	27-MAR-1998;	98US-0079786P.
QY	181	TVSGSCMTGFRVAVQTHSSKFEFEDGSLKEVHKINENYASIQBELKSIKCKVEDSEQAV	240	PR	31-MAR-1998;	98US-0080107P.
Db	181	TVSGSCMTGFRVAVQTHSSKFEFEDGSLKEVHKINENYASIQBELKSIKCKVEDSEQAV	240	PR	31-MAR-1998;	98US-0080194P.
QY	241	DKLVKDVNRLKKEIEKRGGAQIQAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300	PR	01-APR-1998;	98US-0080327P.
Db	241	DKLVKDVNRLKKEIEKRGGAQIQAAAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS	300	PR	01-APR-1998;	98US-0080333P.
QY	301	LKNRVKSSCNYNHLDVVDNLTLWVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS	360	PR	08-APR-1998;	98US-0081049P.
Db	301	LKNRVKSSCNYNHLDVVDNLTLWVEHTDIPASPASTPQIIKHKALDLDLDRWQFKRS	360	PR	08-APR-1998;	98US-0081070P.
QY	361	RLLDTDQKESKANTGSSNQDKASKMSSPETDEIEKMGFGGEYSRSPTF	409	PR	09-APR-1998;	98US-0081195P.
Db	361	RLLDTDQKESKANTGSSNQDKASKMSSPETDEIEKMGFGGEYSRSPTF	409	PR	09-APR-1998;	98US-008138P.
RESULT 97					98US-0082568P.	98US-0082569P.
ABU87247					98US-0082704P.	98US-0082797P.
XX	AC	ABU87247 standard; protein; 409 AA.		PR	22-APR-1998;	98US-0082797P.
XX	AC	ABU87247;		PR	22-APR-1998;	98US-0083222P.
XX	DT	08-JUL-2003 (first entry)		PR	29-APR-1998;	98US-0083495P.
XX	DE	Human PRO polypeptide #67.		PR	29-APR-1998;	98US-0083496P.
XX	KW	Human; PRO polypeptide; secreted protein; transmembrane protein;		PR	29-APR-1998;	98US-0083499P.
XX	KW	chromosome mapping; gene mapping; tumour; adrenal; lung; colon; breast;		PR	29-APR-1998;	98US-0083559P.
XX	KW	prostate; rectal; cervical; liver; cancer; cytostatic.		PR	29-APR-1998;	98US-0083559P.
XX	OS	Homo sapiens.		PR	05-MAY-1998;	98US-0084366P.
XX	PN	US2003036138-A1.		PR	06-MAY-1998;	98US-0084414P.
XX	PD	20-FEB-2003.		PR	07-MAY-1998;	98US-0084639P.
XX	PF	28-JUN-2002; 2002US-00184650.		PR	07-MAY-1998;	98US-0084640P.
XX	PR	18-SEP-1997; 97US-0059263P.		PR	15-MAY-1998;	98US-008579P.
XX	PR	18-SEP-1997; 97US-0059266P.		PR	15-MAY-1998;	98US-0085580P.
XX	PR	17-OCT-1997; 97US-0062250P.		PR	15-MAY-1998;	98US-0085582P.
XX	PR	21-OCT-1997; 97US-0063486P.		PR	15-MAY-1998;	98US-0085700P.
XX	PR	24-OCT-1997; 97US-0063120P.		PR	18-MAY-1998;	98US-0086023P.
XX	PR	24-OCT-1997; 97US-0063121P.		PR	22-MAY-1998;	98US-0086392P.
XX	PR	28-OCT-1997; 97US-0063540P.		PR	22-MAY-1998;	98US-0086486P.
XX	PR	28-OCT-1997; 97US-0063541P.		PR	28-MAY-1998;	98US-0087098P.
XX	PR	28-OCT-1997; 97US-0063544P.		PR	28-MAY-1998;	98US-0087208P.
XX	PR	29-OCT-1997; 97US-0063564P.		PR	02-JUN-1998;	98US-0087509P.
XX	PR	31-OCT-1997; 97US-0063734P.		PR	02-JUN-1998;	98US-0087509P.
XX	PR	31-OCT-1997; 97US-0063870P.		PR	03-JUN-1998;	98US-0087599P.
XX	PR	31-OCT-1997; 97US-0064103P.		PR	03-JUN-1998;	98US-0087827P.
XX	PR	13-NOV-1997; 97US-0065311P.		PR	04-JUN-1998;	98US-0088025P.
XX	PR	21-NOV-1997; 97US-0066120P.		PR	04-JUN-1998;	98US-0088028P.
XX	PR	24-NOV-1997; 97US-0066466P.		PR	04-JUN-1998;	98US-0088029P.
XX	PR	24-NOV-1997; 97US-0066772P.		PR	04-JUN-1998;	98US-0088033P.
XX	PR	11-DEC-1997; 97US-0069335P.		PR	04-JUN-1998;	98US-0088326P.
XX	PR	12-DEC-1997; 97US-0069425P.		PR	05-JUN-1998;	98US-0088326P.
XX	PR	17-DEC-1997; 97US-0069870P.		PR	05-JUN-1998;	98US-0088567P.
XX	PR	18-DEC-1997; 97US-0068017P.		PR	05-JUN-1998;	98US-0088820P.
XX	PR	18-SEP-1997; 97US-0059263P.		PR	05-JUN-1998;	98US-0088821P.
XX	PR	18-SEP-1997; 97US-0059266P.		PR	09-JUN-1998;	98US-0088821P.
XX	PR	17-OCT-1997; 97US-0062250P.		PR	09-JUN-1998;	98US-0088825P.
XX	PR	21-OCT-1997; 97US-0063486P.		PR	10-JUN-1998;	98US-0088722P.
XX	PR	24-OCT-1997; 97US-0063120P.		PR	10-JUN-1998;	98US-0088738P.
XX	PR	24-OCT-1997; 97US-0063121P.		PR	10-JUN-1998;	98US-0088740P.
XX	PR	28-OCT-1997; 97US-0063540P.		PR	10-JUN-1998;	98US-0088811P.
XX	PR	28-OCT-1997; 97US-0063541P.		PR	10-JUN-1998;	98US-0088824P.
XX	PR	28-OCT-1997; 97US-0063544P.		PR	10-JUN-1998;	98US-0088825P.
XX	PR	29-OCT-1997; 97US-0063564P.		PR	11-JUN-1998;	98US-0088826P.
XX	PR	31-OCT-1997; 97US-0063734P.		PR	11-JUN-1998;	98US-0088861P.
XX	PR	31-OCT-1997; 97US-0063870P.		PR	11-JUN-1998;	98US-0088861P.
XX	PR	31-OCT-1997; 97US-0064103P.		PR	11-JUN-1998;	98US-0088863P.
XX	PR	13-NOV-1997; 97US-0065311P.		PR	11-JUN-1998;	98US-0088863P.
XX	PR	21-NOV-1997; 97US-0066120P.		PR	12-JUN-1998;	98US-0089090P.
XX	PR	24-NOV-1997; 97US-0066466P.		PR	12-JUN-1998;	98US-0089105P.
XX	PR	24-NOV-1997; 97US-0066772P.		PR	12-JUN-1998;	98US-0089512P.
XX	PR	11-DEC-1997; 97US-0069335P.		PR	16-JUN-1998;	98US-0089514P.
XX	PR	12-DEC-1997; 97US-0069425P.		PR	16-JUN-1998;	98US-0089538P.
XX	PR	17-DEC-1997; 97US-0069870P.		PR	17-JUN-1998;	98US-0089598P.
XX	PR	18-DEC-1997; 97US-0068017P.		PR	17-JUN-1998;	98US-0089653P.
XX	PR	18-SEP-1997; 97US-0059263P.		PR	17-JUN-1998;	98US-0089908P.
XX	PR	18-SEP-1997; 97US-0059266P.		PR	18-JUN-1998;	98US-0089952P.
XX	PR	17-OCT-1997; 97US-0062250P.		PR	19-JUN-1998;	98US-0090246P.
XX	PR	21-OCT-1997; 97US-0063486P.		PR	22-JUN-1998;	98US-0090252P.
XX	PR	24-OCT-1997; 97US-0063120P.		PR	22-JUN-1998;	98US-0090254P.
XX	PR	24-OCT-1997; 97US-0063121P.		PR		
XX	PR	28-OCT-1997; 97US-0063540P.		PR		
XX	PR	28-OCT-1997; 97US-0063541P.		PR		
XX	PR	28-OCT-1997; 97US-0063544P.		PR		
XX	PR	29-OCT-1997; 97US-0063564P.		PR		
XX	PR	31-OCT-1997; 97US-0063734P.		PR		
XX	PR	31-OCT-1997; 97US-0063870P.		PR		
XX	PR	31-OCT-1997; 97US-0064103P.		PR		
XX	PR	13-NOV-1997; 97US-0065311P.		PR		
XX	PR	21-NOV-1997; 97US-0066120P.		PR		
XX	PR	24-NOV-1997; 97US-0066466P.		PR		
XX	PR	24-NOV-1997; 97US-0066772P.		PR		
XX	PR	11-DEC-1997; 97US-0069335P.		PR		
XX	PR	12-DEC-1997; 97US-0069425P.		PR		
XX	PR	17-DEC-1997; 97US-0069870P.		PR		
XX	PR	18-DEC-1997; 97US-0068017P.		PR		

PR 24-JUN-1998; 98US-0090429P.  
PR 24-JUN-1998; 98US-0090435P.  
PR 24-JUN-1998; 98US-0090441P.  
PR 24-JUN-1998; 98US-0090461P.  
PR 24-JUN-1998; 98US-0090535P.  
PR 24-JUN-1998; 98US-0090540P.  
PR 24-JUN-1998; 98US-0090676P.  
PR 25-JUN-1998; 98US-0090678P.  
PR 25-JUN-1998; 98US-0090688P.  
PR 25-JUN-1998; 98US-0090690P.  
PR 25-JUN-1998; 98US-0090694P.  
PR 25-JUN-1998; 98US-0090695P.  
PR 25-JUN-1998; 98US-0090696P.  
PR 26-JUN-1998; 98US-00105413.  
PR 26-JUN-1998; 98US-0090862P.  
PR 26-JUN-1998; 98US-0090863P.  
PR 26-JUN-1998; 98US-0091010P.  
PR 01-JUL-1998; 98US-0091359P.  
PR 01-JUL-1998; 98US-0091544P.  
PR 02-JUL-1998; 98US-0091478P.  
PR 02-JUL-1998; 98US-0091486P.  
PR 02-JUL-1998; 98US-0091626P.  
PR 02-JUL-1998; 98US-0091628P.  
PR 02-JUL-1998; 98US-0091632P.  
PR 24-JUL-1998; 98US-0094006P.  
PR 04-AUG-1998; 98US-0095282P.  
PR 10-AUG-1998; 98US-0095998P.  
PR 10-AUG-1998; 98US-0096012P.  
PR 17-AUG-1998; 98US-0096157P.  
PR 17-AUG-1998; 98US-0096766P.  
PR 17-AUG-1998; 98US-0096867P.  
PR 17-AUG-1998; 98US-0096891P.  
PR 17-AUG-1998; 98US-0096897P.  
PR 18-AUG-1998; 98US-0096949P.  
PR 18-AUG-1998; 98US-0096959P.  
PR 26-AUG-1998; 98US-0097022P.  
PR 26-AUG-1998; 98US-0097952P.  
PR 26-AUG-1998; 98US-0097954P.  
PR 26-AUG-1998; 98US-0097955P.  
PR 26-AUG-1998; 98US-0097971P.  
PR 26-AUG-1998; 98US-0097974P.  
PR 26-AUG-1998; 98US-0098014P.  
PR 01-SEP-1998; 98US-0098716P.  
PR 01-SEP-1998; 98US-0098723P.  
PR 02-SEP-1998; 98US-0098803P.  
PR 02-SEP-1998; 98US-0098821P.  
PR 02-SEP-1998; 98US-0098843P.  
PR 09-SEP-1998; 98US-0099602P.  
PR 10-SEP-1998; 98US-0099741P.  
PR 10-SEP-1998; 98US-0099754P.  
PR 10-SEP-1998; 98US-0099812P.  
PR 16-SEP-1998; 98US-0100388P.  
PR 16-SEP-1998; 98US-0100662P.  
PR 16-SEP-1998; 98US-0100664P.  
PR 16-SEP-1998; 98US-0101751P.  
PR 17-SEP-1998; 98US-01019330.  
PR 17-SEP-1998; 98US-0100683P.  
PR 17-SEP-1998; 98US-0100684P.  
PR 17-SEP-1998; 98US-0100919P.  
PR 17-SEP-1998; 98US-0100930P.  
PR 18-SEP-1998; 98US-0100849P.  
PR 18-SEP-1998; 98US-0101014P.  
PR 18-SEP-1998; 98US-0101066P.  
PR 23-SEP-1998; 98US-0101471P.  
PR 23-SEP-1998; 98US-0101472P.  
PR 23-SEP-1998; 98US-0101475P.  
PR 23-SEP-1998; 98US-0101477P.  
PR 24-SEP-1998; 98US-0101738P.  
PR 24-SEP-1998; 98US-0101739P.  
PR 24-SEP-1998; 98US-0101743P.  
PR 24-SEP-1998; 98US-0101922P.  
PR 25-SEP-1998; 98US-0101766P.

PR 29-SEP-1998; 98US-0102207P.  
PR 29-SEP-1998; 98US-0102240P.  
PR 29-SEP-1998; 98US-0102330P.  
PR 29-SEP-1998; 98US-0102331P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102487P.  
PR 30-SEP-1998; 98US-0102570P.  
PR 30-SEP-1998; 98US-0102571P.  
PR 01-OCT-1998; 98US-0102864P.  
PR 01-OCT-1998; 98US-0102867P.  
PR 02-OCT-1998; 98US-0102965P.  
PR 06-OCT-1998; 98US-0103258P.  
PR 06-OCT-1998; 98US-0103449P.  
PR 07-OCT-1998; 98US-00168978.

Query Match: 100.0%; Score 409; DB 6; Length 409;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MEGESTSAVLGSGFVLGALAFQHLNTDSTDEGFLGEGVKEAKNSITDSQMDVVEVYITD 60  
DB 1 MEGESTSAVLGSGFVLGALAFQHLNTDSTDEGFLGEGVKEAKNSITDSQMDVVEVYITD 60  
QY 61 IQKIYPCYQLFSPYNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRELLHKN 120  
DB 61 IQKIYPCYQLFSPYNSGGEVNEQALKILSNVKNVGVYKFRHSDQIMTFRELLHKN 120  
QY 121 LQEHFSNQDLVFLLLTPSIIITSCSTRLEHSLYKPKGLFHRVPLVWANGSOLGYK 180  
DB 121 LQEHFSNQDLVFLLLTPSIIITSCSTRLEHSLYKPKGLFHRVPLVWANGSOLGYK 180  
QY 181 TVSGSCMSTGFSRAVQTHSSKPFEEGSLKEVHKINEMVASYLQEEELKSIKKVDESEQAV 240  
DB 181 TVSGSCMSTGFSRAVQTHSSKPFEEGSLKEVHKINEMVASYLQEEELKSIKKVDESEQAV 240  
QY 241 DKLVDVNRKREIKRERGAQIOAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
DB 241 DKLVDVNRKREIKRERGAQIOAREKNIQKDPQENIFLCOALRTFFPNSEFLHSCVMS 300  
QY 301 LKQHVSKSCNTHLDDVVDNLTLAVEHTDIPEASPASTPOI IKHKLDDDRNQFKRS 360  
DB 301 LKQHVSKSCNTHLDDVVDNLTLAVEHTDIPEASPASTPOI IKHKLDDDRNQFKRS 360  
QY 361 RLDDTDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYSRSPTF 409  
DB 361 RLDDTDKRSKANTGSSNQDKASKMSSPETDEIEKMGFGYSRSPTF 409

RESULT 98  
ABU83719  
ID ABU83719 standard; protein; 409 AA.  
XX AC ABU83719;  
XX DT 11-AUG-2003 (first entry)  
XX DR Human secreted/transmembrane protein (PRO) #67.  
XX KW Human; secreted and transmembrane protein; PRO; TNF-alpha;  
XX KW tumour necrosis factor alpha; chondrocyte cell; tumour; gene therapy;  
XX KW tissue typing; cytotstatic.  
XX OS Homo sapiens.  
XX PN US2003032109-A1.  
XX PD 13-FEB-2003.  
XX PF 20-JUN-2002; 2002US-00176485.  
XX PR 18-SEP-1997; 97US-0059263P.  
XX PR 18-SEP-1997; 97US-0059266P.  
XX PR 17-OCT-1997; 97US-0062250P.  
XX PR 21-OCT-1997; 97US-0063486P.

98US-0088825P	10-JUN-1998;
98US-0088826P	10-JUN-1998;
98US-0088861P	11-JUN-1998;
98US-0088863P	11-JUN-1998;
98US-0088876P	11-JUN-1998;
98US-0089090P	12-JUN-1998;
98US-0089105P	12-JUN-1998;
98US-0089511P	16-JUN-1998;
98US-0089512P	16-JUN-1998;
98US-0089514P	17-JUN-1998;
98US-0089538P	17-JUN-1998;
98US-0089598P	17-JUN-1998;
98US-0089653P	18-JUN-1998;
98US-0089908P	18-JUN-1998;
98US-0089952P	19-JUN-1998;
98US-0089952P	22-JUN-1998;
98US-0090246P	22-JUN-1998;
98US-0090252P	22-JUN-1998;
98US-0090254P	23-JUN-1998;
98US-0090429P	24-JUN-1998;
98US-0090435P	24-JUN-1998;
98US-0090444P	24-JUN-1998;
98US-0090446P	24-JUN-1998;
98US-0090535P	24-JUN-1998;
98US-0090540P	24-JUN-1998;
98US-0090676P	25-JUN-1998;
98US-0090678P	25-JUN-1998;
98US-0090688P	25-JUN-1998;
98US-0090690P	25-JUN-1998;
98US-0090694P	25-JUN-1998;
98US-0090696P	25-JUN-1998;
98US-0090696P	25-JUN-1998;
98US-0090915P	26-JUN-1998;
98US-0090862P	26-JUN-1998;
98US-0091010P	26-JUN-1998;
98US-0091153P	01-JUL-1998;
98US-0091544P	01-JUL-1998;
98US-0091478P	01-JUL-1998;
98US-0091486P	02-JUL-1998;
98US-0091626P	02-JUL-1998;
98US-0091628P	02-JUL-1998;
98US-0091632P	02-JUL-1998;
98US-0094006P	04-AUG-1998;
98US-0095282P	10-AUG-1998;
98US-0095989P	10-AUG-1998;
98US-0096017P	17-AUG-1998;
98US-0096766P	17-AUG-1998;
98US-0096867P	17-AUG-1998;
98US-0096891P	17-AUG-1998;
98US-0096897P	17-AUG-1998;
98US-0096949P	18-AUG-1998;
98US-0096959P	18-AUG-1998;
98US-0097022P	18-AUG-1998;
98US-0097952P	26-AUG-1998;
98US-0097955P	26-AUG-1998;
98US-0097974P	26-AUG-1998;
98US-0097975P	26-AUG-1998;
98US-0097977P	26-AUG-1998;
98US-0098041P	26-AUG-1998;
98US-0098063P	02-SEP-1998;
98US-0098843P	02-SEP-1998;
98US-00989602P	10-SEP-1998;
98US-0099741P	10-SEP-1998;
98US-0099743P	10-SEP-1998;
98US-0098716P	01-SEP-1999;
98US-0098912P	10-SEP-1999;
98US-0100388P	15-SEP-1999;
98US-0100662P	16-SEP-1999;
98US-0100654P	16-SEP-1999;
98US-0100751P	16-SEP-1999;

PR	16-SEP-1998;	98WO-US0191330.
PR	17-SEP-1998;	98US-0100683P.
PR	17-SEP-1998;	98US-0100684P.
PR	17-SEP-1998;	98US-0100919P.
PR	17-SEP-1998;	98US-0100930P.
PR	18-SEP-1998;	98US-0100849P.
PR	18-SEP-1998;	98US-0101014P.
PR	18-SEP-1998;	98US-0101068P.
PR	23-SEP-1998;	98US-0101471P.
PR	23-SEP-1998;	98US-0101472P.
PR	23-SEP-1998;	98US-0101473P.
PR	23-SEP-1998;	98US-0101477P.
PR	24-SEP-1998;	98US-0101738P.
PR	24-SEP-1998;	98US-0101739P.
PR	24-SEP-1998;	98US-0101743P.
PR	24-SEP-1998;	98US-0101923P.
PR	25-SEP-1998;	98US-0101788P.
PR	29-SEP-1998;	98US-0102207P.
PR	29-SEP-1998;	98US-0102240P.
PR	29-SEP-1998;	98US-0102330P.
PR	29-SEP-1998;	98US-0102331P.
PR	30-SEP-1998;	98US-0102487P.
PR	30-SEP-1998;	98US-0102570P.
PR	30-SEP-1998;	98US-0102571P.
PR	01-OCT-1998;	98US-0102684P.
PR	01-OCT-1998;	98US-0102687P.
PR	02-OCT-1998;	98US-0102965P.
PR	06-OCT-1998;	98US-0103258P.
PR	06-OCT-1998;	98US-0103449P.
PR	07-OCT-1998;	98US-00168978.

Query Match

Best Local Similarity 100.0%; Score 409; DB 6; Length 409;

Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MEGETSAVLGSFVLGALAFQHLNLTDSITEGLGEVKEAKNSITDSQMDVVEVYTID	60
Db	1	MEGETSAVLGSFVLGALAFQHLNLTDSITEGLGEVKEAKNSITDSQMDVVEVYTID	60
Qy	61	IKYIPCYOLFNFYSSGEVNEQALKKILSNVKNVGVNFKPRHSDQIMTFERLLHKN	120
Db	61	IKYIPCYOLFNFYSSGEVNEQALKKILSNVKNVGVNFKPRHSDQIMTFERLLHKN	120
Qy	121	LOEHFSNQDLVLLLTTPSIITSCSTHRLHSLYKPKGLFHRVPLVNVANLGMSEQLGYK	180
Db	121	LOEHFSNQDLVLLLTTPSIITSCSTHRLHSLYKPKGLFHRVPLVNVANLGMSEQLGYK	180
Qy	181	TVSGSCMSTGFRAYQTHSSKFFEDGSLKEVHKINEMVYASIQBELKSICKKVEDSEQAV	240
Db	181	TVSGSCMSTGFRAYQTHSSKFFEDGSLKEVHKINEMVYASIQBELKSICKKVEDSEQAV	240
Qy	241	DKLVKDVNFKLEEIEKRGQAQIQAREKNIQKPOENIFLQALTFPPNSEFLHSCVMS	300
Db	241	DKLVKDVNFKLEEIEKRGQAQIQAREKNIQKPOENIFLQALTFPPNSEFLHSCVMS	300
Qy	301	LKNRHVSKSSCNYNHDLVDNLTLMVHTDIPEASASTPQIIKHKALDLDLRWQFKRS	360
Db	301	LKNRHVSKSSCNYNHDLVDNLTLMVHTDIPEASASTPQIIKHKALDLDLRWQFKRS	360
Qy	361	RLLDTDKSKSKANTSSNQDKASKSSPETDEIEKMKGFGEYSRSPTF	409
Db	361	RLLDTDKSKSKANTSSNQDKASKSSPETDEIEKMKGFGEYSRSPTF	409

RESULT 99

ABO08093  
ID ABO08093 standard; protein; 409 AA.

XX  
AC  
ABO08093;

XX  
DT 19-AUG-2003 (first entry)

XX  
DE Human PRO polypeptide #67.

XX	Human; PRO; secreted polypeptide; transmembrane polypeptide; cytostatic; tumour necrosis factor-alpha; TNF-alpha; blood; tumour; chondrocyte cell; cancer.
KW	
KW	
XX	
OS	Homo sapiens.
XX	
PN	US2003040066-A1.
XX	
PD	27-FEB-2003.
XX	
PF	26-JUN-2002; 2002US-00183019.
XX	
PR	18-SEP-1997; 97US-0059263P.
PR	18-SEP-1997; 97US-0059266P.
PR	17-OCT-1997; 97US-0062509P.
PR	21-OCT-1997; 97US-0063486P.
PR	24-OCT-1997; 97US-0063120P.
PR	24-OCT-1997; 97US-0063121P.
PR	28-OCT-1997; 97US-0063540P.
PR	28-OCT-1997; 97US-0063541P.
PR	28-OCT-1997; 97US-0063544P.
PR	28-OCT-1997; 97US-0063564P.
PR	29-OCT-1997; 97US-0063734P.
PR	31-OCT-1997; 97US-0063870P.
PR	31-OCT-1997; 97US-0064103P.
PR	13-NOV-1997; 97US-0065311P.
PR	21-NOV-1997; 97US-0066120P.
PR	24-NOV-1997; 97US-0066466P.
PR	24-NOV-1997; 97US-0066772P.
PR	11-DEC-1997; 97US-0069335P.
PR	12-DEC-1997; 97US-0069425P.
PR	17-DEC-1997; 97US-0069870P.
PR	18-DEC-1997; 97US-0068017P.
PR	10-MAR-1998; 98US-0077450P.
PR	11-MAR-1998; 98US-0077632P.
PR	11-MAR-1998; 98US-0077649P.
PR	20-MAR-1998; 98US-0078886P.
PR	20-MAR-1998; 98US-0078939P.
PR	27-MAR-1998; 98US-0079664P.
PR	27-MAR-1998; 98US-0079786P.
PR	31-MAR-1998; 98US-0080107P.
PR	31-MAR-1998; 98US-0080194P.
PR	01-APR-1998; 98US-0080327P.
PR	08-APR-1998; 98US-0081049P.
PR	08-APR-1998; 98US-0081070P.
PR	03-APR-1998; 98US-0081195P.
PR	15-APR-1998; 98US-0081838P.
PR	21-APR-1998; 98US-0082568P.
PR	21-APR-1998; 98US-0082569P.
PR	22-APR-1998; 98US-0082704P.
PR	22-APR-1998; 98US-0082797P.
PR	28-APR-1998; 98US-0083322P.
PR	29-APR-1998; 98US-0083496P.
PR	29-APR-1998; 98US-0083499P.
PR	29-APR-1998; 98US-0083559P.
PR	05-MAY-1998; 98US-0084366P.
PR	06-MAY-1998; 98US-0084414P.
PR	07-MAY-1998; 98US-0084639P.
PR	07-MAY-1998; 98US-0084840P.
PR	15-MAY-1998; 98US-0084843P.
PR	15-MAY-1998; 98US-0085579P.
PR	15-MAY-1998; 98US-0085580P.
PR	15-MAY-1998; 98US-0085582P.
PR	15-MAY-1998; 98US-0085700P.
PR	18-MAY-1998; 98US-0086023P.
PR	22-MAY-1998; 98US-0086392P.
PR	22-MAY-1998; 98US-0086486P.
PR	28-MAY-1998; 98US-0087098P.
PR	28-MAY-1998; 98US-0087208P.
PR	02-JUN-1998; 98US-0087609P.



DB 301 LKNRHSKSNYNHLDVVDNLTLAVEHTDIPASPASTPQIIKHKALDLDLRQFKRS 360  
 QY 361 RLIDTQDKRKANTGSSNQDKASKMSSPETDEIEKMGKGEYSRSPTF 409  
 DB 361 RLIDTQDKRKANTGSSNQDKASKMSSPETDEIEKMGKGEYSRSPTF 409  
 RESULT 100  
 ABU92486  
 ID ABU92486 standard; protein; 409 AA.  
 AC ABU92486;  
 XX  
 DT 17-JUL-2003 (first entry)  
 XX  
 DE Human secreted/transmembrane protein PRO1013.  
 XX  
 KW Human; PRO; secreted protein; transmembrane protein; cytostatic;  
 KW vulnery; osteoparic; antiarthritis; antirheumatic; lung tumour;  
 KW colon tumour; breast tumour; prostate tumour; rectal tumour;  
 KW liver tumour; tumour necrosis factor; pericyte cell proliferation;  
 KW TNF-alpha; proteoglycans release; cartilage; cancer; wound healing;  
 KW cartilage defect; osteoarthritis; rheumatoid arthritis.  
 XX  
 OS Homo sapiens.  
 XX  
 FN US2003045684-A1.  
 XX  
 PD 06-MAR-2003.  
 XX  
 EF 02-MAY-2002; 2002US-00063553.  
 XX  
 PR 30-DEC-1998; 98KP-00062142.  
 PR 08-MAR-1999; 99WO-US005028.  
 PR 14-MAY-1999; 99US-00311832.  
 PR 14-MAY-1999; 99WO-US011832.  
 PR 25-AUG-1999; 99US-00380137.  
 PR 25-AUG-1999; 99US-00380137.  
 PR 25-AUG-1999; 99US-00380138.  
 PR 25-AUG-1999; 99US-00380139.  
 PR 25-AUG-1999; 99US-00380142.  
 PR 15-SEP-1999; 99US-00397342.  
 PR 18-OCT-1999; 99US-00403297.  
 PR 12-NOV-1999; 99US-00423844.  
 PR 30-DEC-1999; 99WO-US031274.  
 PR 18-FEB-2000; 2000WO-US004341.  
 PR 01-MAR-2000; 2000WO-US005601.  
 PR 02-MAR-2000; 2000WO-US005841.  
 PR 21-MAR-2000; 2000WO-US007532.  
 PR 22-MAY-2000; 2000WO-US014042.  
 PR 22-AUG-2000; 2000WO-US015264.  
 PR 24-AUG-2000; 2000US-00644848.  
 PR 24-AUG-2000; 2000WO-US023328.  
 PR 18-SEP-2000; 2000US-00664610.  
 PR 18-SEP-2000; 2000US-00665350.  
 PR 08-NOV-2000; 2000US-00702328.  
 PR 10-NOV-2000; 2000WO-US030873.  
 PR 01-DEC-2000; 2000WO-US032678.  
 PR 20-DEC-2000; 2000US-00747259.  
 PR 20-DEC-2000; 2000WO-US034956.  
 PR 28-FEB-2001; 2001WO-US0006520.  
 PR 22-MAR-2001; 2001US-00816744.  
 PR 10-MAY-2001; 2001US-00854208.  
 PR 30-MAY-2001; 2001US-00854280.  
 PR 01-JUN-2001; 2001US-00870574.  
 PR 05-JUN-2001; 2001WO-US017800.  
 PR 29-JUN-2001; 2001US-00874503.  
 PR 18-JUL-2001; 2001US-00869599.  
 PR 06-DEC-2001; 2001US-00908827.  
 XX  
 XX 06-DEC-2001; 2001US-00006867.  
 (GETH ) GENENTECH INC.

PI Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;  
 PI Grimaldi JC, Gurney AL, Watanabe CK, Wood WT;  
 XX WPI; 2003-392892/37.  
 DR N-PSDB; ACA93707.  
 XX  
 PT New PRO994 polypeptide, useful for detecting tumors, or for stimulating  
 PT Tumor Necrosis Factor alpha, or pericyte proliferation, especially for  
 PT treating cancer, cartilage defects, osteoarthritis and rheumatoid  
 PT arthritis in a mammal.  
 XX  
 PS Disclosure; Fig 22; 235pp; English.  
 XX  
 CC The invention relates to a new isolated PRO994 polypeptide comprises an  
 CC amino acid sequence appearing as ABU92499, PRO994 lacking its associated  
 CC signal peptide, the extracellular domain of PRO994, the extracellular  
 CC domain of PRO994 (lacking its associated signal peptide) or the protein  
 CC encoded by the full-length coding sequence of the cDNA ATCC 203018. Also  
 CC included is a chimaeric molecule comprising the PRO994 polypeptide fused  
 CC to a heterologous amino acid sequence. The PRO polypeptide is useful in  
 CC pharmaceuticals, diagnostics, biosensors or bioreactors. It is  
 CC particularly useful for detecting tumours (e.g. lung tumour, colon  
 CC tumour, breast tumour, prostate tumour, rectal tumour, or liver tumour)  
 CC in a mammal, for stimulating the release of tumour necrosis factor (TNF)-  
 CC alpha from human blood, for stimulating the proliferation of pericyte  
 CC cells, or stimulating the release of proteoglycans from cartilage. The  
 CC polypeptide may be employed for a variety of therapeutic purposes, e.g.  
 CC for treating cancer, wound healing, cartilage defects, osteoarthritis,  
 CC rheumatoid arthritis. Also disclosed are the cDNA encoding PRO994, 83,  
 CC other PRO polypeptides and their encoding cDNAs. The present sequence  
 CC represents a PRO polypeptide of the invention  
 XX  
 SQ Sequence 409 AA;

Query Match 100.0%; Score 409; DB 6; Length 409;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 MEGESTSAVLGSGFVLCALAPQHLNLTDSDETEFLGKVGKAKNSITDSQMDDEVVYTTID 60  
 DB 1 MEGESTSAVLGSGFVLCALAPQHLNLTDSDETEFLGKVGKAKNSITDSQMDDEVVYTTID 60  
 QY 61 IQKIYPCYQLFSFYNSGGEVNEQALKILSNVKNVGVWYKFRHSQIMTFRERLIHKN 120  
 DB 61 IQKIYPCYQLFSFYNSGGEVNEQALKILSNVKNVGVWYKFRHSQIMTFRERLIHKN 120  
 QY 121 LOEHFSNQDLVFLLLTPSIITSCSTHRLHSYKPKQGLFHRVPLVYVNLGSEQLGYK 180  
 DB 121 LOEHFSNQDLVFLLLTPSIITSCSTHRLHSYKPKQGLFHRVPLVYVNLGSEQLGYK 180  
 QY 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASLOEELKSI CKKVEDSEQAV 240  
 DB 181 TVSGSCMSTGFSRAVQTHSSKFFEDGSLKEVHKINEMVYASLOEELKSI CKKVEDSEQAV 240  
 QY 241 DXLVKQVNRLLKRETEKRGAGIOAAREKNIOKQPOENIFLCOALRTFFPNSEFLHSCVMS 300  
 DB 241 DXLVKQVNRLLKRETEKRGAGIOAAREKNIOKQPOENIFLCOALRTFFPNSEFLHSCVMS 300  
 QY 301 LKNRHVSKSSCNYNHLDVVDNLTLAVEHTDIPASPASTPQIIKHKALDLDLRQFKRS 360  
 DB 301 LKNRHVSKSSCNYNHLDVVDNLTLAVEHTDIPASPASTPQIIKHKALDLDLRQFKRS 360  
 QY 361 RLIDTQDKRKANTGSSNQDKASKMSSPETDEIEKMGKGEYSRSPTF 409  
 DB 361 RLIDTQDKRKANTGSSNQDKASKMSSPETDEIEKMGKGEYSRSPTF 409

Search completed: April 16, 2004, 10:19:09  
 Job time : 85 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: April 16, 2004, 10:15:05 ; Search time 17 seconds  
(without alignments)

1252.747 Million cell updates/sec

Title: US-10-063-523-22

Perfect score: 409

Sequence: 1 MEGETSAVLGFGVLGALAF.....TDEIEKMGFGSESRPTF 409

Scoring table:

OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 141681 seqs, 52070155 residues

Word size : 6

Total number of hits satisfying chosen parameters: 941

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 500 summaries

Database : SwissProt\_42:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	8	2.0	139	1 PVA STRP3	Q8k7h6 streptococc
2	8	2.0	139	1 PVA STRP8	Q8p120 streptococc
3	8	2.0	199	1 PVA STRP1	Q95zn9 streptococc
4	8	2.0	612	1 DNAK LISIN	Q92bn8 listeria in
5	8	2.0	612	1 DNAK LISMO	Q95sa4 listeria mo
6	8	2.0	1138	1 PGFI MOUSE	Q8chg7 mus musculu
7	8	2.0	1226	1 KF4A XENLA	Q91784 xenopus lae
8	8	2.0	1499	1 PGFI HUMAN	Q97498 homo sapien
9	7	1.7	184	1 SUGS PRODU	P29228 proteus vul
10	7	1.7	105	1 SUGS CITFR	O69279 citrobacter
11	7	1.7	153	1 PTSN BRAJA	P30335 bradyrhizob
12	7	1.7	157	1 YTZF BACSU	O32068 bacillus su
13	7	1.7	165	1 YGU6 YEAST	P53095 saccharomyc
14	7	1.7	182	1 VB07 VACCV	P21003 vaccinia vi
15	7	1.7	216	1 Y458 METJA	O57900 methanococc
16	7	1.7	221	1 GPX5 CANFA	O46607 canis fami
17	7	1.7	242	1 MPGE PYRFU	Q8u381 pyrococcus
18	7	1.7	247	1 SURE NITEU	Q82vv9 nitrosomona
19	7	1.7	256	1 Y727 METTH	O26823 methanobact
20	7	1.7	282	1 YCS3 METJA	Q58650 methanococc
21	7	1.7	294	1 OSTP MOUSE	P10923 mus musculu
22	7	1.7	296	1 OSB1 BORBU	P17739 borrelia bu
23	7	1.7	306	1 COA STRP3	Q8k7c7 streptococc
24	7	1.7	306	1 COA STRP8	Q850v9 streptococc
25	7	1.7	306	1 COA STRP1	Q85zhl streptococc
26	7	1.7	308	1 Y040 BPT4	P39254 bacterioph
27	7	1.7	322	1 O2B2 HUMAN	Q8ngil homo sapien
28	7	1.7	331	1 RBSR BACHD	Q9k6k2 bacillus ha
29	7	1.7	339	1 KDG7 ERWCH	P15701 erwina chr
30	7	1.7	345	1 RDS2 XENLA	O42582 xenopus lae
31	7	1.7	363	1 PG41 COLLN	O00446 colletoctric
32	7	1.7	385	1 NUPM METSE	O47495 metridium s
33	7	1.7	413	1 YG18 AQUAE	O67545 aquifex aeo

34	7	1.7	465	1 GAC1 HUMAN	Q8n1c3 homo sapien
35	7	1.7	474	1 DLDH HALVO	Q04829 halobacteri
36	7	1.7	478	1 IF3Y YEAST	P41814 saccharomyc
37	7	1.7	486	1 MURC VIBCH	Q9kpg8 vibrio chol
38	7	1.7	490	1 GCSB STAAM	Q95tv9 staphylococ
39	7	1.7	490	1 GCSB STAAM	Q8nwd0 staphylococ
40	7	1.7	491	1 TY3H PHASP	P11982 phasianidae
41	7	1.7	498	1 XSM5 CAEEL	Q10125 caenorhabdi
42	7	1.7	502	1 GCSB STAEP	Q8cmml staphylococ
43	7	1.7	508	1 VRK2 HUMAN	Q86y07 homo sapien
44	7	1.7	548	1 PNK1 MOUSE	Q8k4k6 mus musculu
45	7	1.7	598	1 PNK1 HUMAN	Q8te04 homo sapien
46	7	1.7	614	1 DNAS BACSU	Q8kml6 lactobacill
47	7	1.7	632	1 ASNE BACTN	P54420 bacillus su
48	7	1.7	638	1 DNAS BACTN	Q89746 bacteroides
49	7	1.7	755	1 SENS HUMAN	Q96hi0 homo sapien
50	7	1.7	755	1 SENS MACFA	Q8wp32 macaca fasc
51	7	1.7	780	1 NH48 CAEEL	Q94407 caenorhabdi
52	7	1.7	908	1 H104 YEAST	P31539 saccharomyc
53	7	1.7	954	1 M3KA HUMAN	Q02779 homo sapien
54	7	1.7	1011	1 CAPP SYNEL	Q94qb2 synechococc
55	7	1.7	1142	1 PAK1 YEAST	P38990 saccharomyc
56	7	1.7	1178	1 PYC1 YEAST	P11154 saccharomyc
57	7	1.7	1248	1 SYJ2 RAT	O55207 rattus norv
58	7	1.7	1341	1 VG37 BPT2	P07067 bacterioph
59	7	1.7	1443	1 SYJ2 HUMAN	O15056 homo sapien
60	7	1.7	1632	1 UN89 CAEEL	O01761 caenorhabdi
61	6	1.5	29	1 KDPF ECOLI	P36937 escherichia
62	6	1.5	38	1 YC69 HAEIN	P44148 haemophilus
63	6	1.5	52	1 TPCS PRODO	P81074 prototenus
64	6	1.5	58	1 68MP HUMAN	P56378 homo sapien
65	6	1.5	58	1 68MP HUMAN	P56379 mus musculu
66	6	1.5	60	1 68MP BOVIN	P14790 bos taurus
67	6	1.5	66	1 Y766 METJA	Q58176 methanococc
68	6	1.5	68	1 Y055 NPVOP	O10313 orgyia pseu
69	6	1.5	78	1 U197 DROME	Q9vva8 drosophila
70	6	1.5	79	1 Y607 METJA	Q58024 methanococc
71	6	1.5	83	1 OADG KLEPN	P13155 klebsiella
72	6	1.5	93	1 DEP2 MOUSE	P28309 mus musculu
73	6	1.5	103	1 RM32 SCHPO	Q94379 schizosacch
74	6	1.5	110	1 Y182 STRCO	P19781 streptomyce
75	6	1.5	110	1 YU44 PYRAE	Q8ztx7 pyrobaculum
76	6	1.5	111	1 RL30 ORYSA	Q9adg6 oryza sativ
77	6	1.5	112	1 RL30 EUPES	Q9m5m6 euphorbia e
78	6	1.5	112	1 RL30 LUPLU	O49884 lupinus lut
79	6	1.5	112	1 RL30 MAIZE	O48558 zea mays (m
80	6	1.5	114	1 YJ74 AQUAE	O67784 aquifex aeo
81	6	1.5	116	1 NUSM SQUAC	Q92z47 squalus aca
82	6	1.5	117	1 AMC2 FIG	P22952 sus scrofa
83	6	1.5	120	1 YE55 PYRHO	O59124 pyrococcus
84	6	1.5	122	1 ZEAV MAIZE	P05815 zea mays (m
85	6	1.5	125	1 PFDB HALN1	Q9hsh0 halobacteri
86	6	1.5	126	1 Y576 HAEIN	P44762 haemophilus
87	6	1.5	126	1 YB01 PASMU	Q9clv1 pasteurilla
88	6	1.5	129	1 RS11 NITEU	Q82x71 nitrosomona
89	6	1.5	129	1 V132 FOWPV	P15914 fowlpox vir
90	6	1.5	131	1 YN09 YEAST	P53841 saccharomyc
91	6	1.5	134	1 RVUX HELPY	O25101 helicobacte
92	6	1.5	136	1 C17 HUMAN	Q9nrr1 homo sapien
93	6	1.5	136	1 MSCT PSEFL	O68286 pseudomonas
94	6	1.5	137	1 MSCL PSEAB	Q9hsv7 pseudomonas
95	6	1.5	137	1 UVSX BPT4	P04537 bacterioph
96	6	1.5	138	1 APEE SYNPI	Q05375 synechococc
97	6	1.5	138	1 EXD1 VIBCH	O52044 vibrio chol
98	6	1.5	138	1 NIKR PYRHO	O58316 pyrococcus
99	6	1.5	138	1 Y337 MYCGE	P47579 mycoplasma
100	6	1.5	140	1 YOR1 CALSR	P40979 caldicellul
101	6	1.5	141	1 V192 FOWPV	Q91541 fowlpox vir
102	6	1.5	142	1 TM10 PIG	Q29102 sus scrofa
103	6	1.5	144	1 REV OMVVS	P16903 ovine lenti
104	6	1.5	148	1 GLB3 TYLHE	P13578 tylorrhynch
105	6	1.5	148	1 MSCL PSESM	Q87wb2 pseudomonas
106	6	1.5	150	1 TRAI VACCC	P20982 vaccinia vi



107	6	1.5	150	1	TAAL_VACCV	P07610	vaccinia vi	180	1	H11_GLYSA	P40266	glyptotendi
108	6	1.5	150	1	TAAL_VARV	P33814	variola vir	181	1	RNFE_YERPE	Q8264	yersinia pe
109	6	1.5	152	1	NLP_DROME	Q27415	drosophila	182	1	RL1_RICPR	Q92623	rickettsia
110	6	1.5	152	1	SDDC_PINSY	P24669	pinus sylve	183	1	ZPRO_MOUSE	Q9da39	mus musculus
111	6	1.5	155	1	SRRP_STR33	Q8e455	streptococ	184	1	COAT_NNV	P15100	narcissus m
112	6	1.5	159	1	BEF_MYCLE	P43315	mycobacteri	185	1	PDJ1_NEIMA	Q9K929	neisseria m
113	6	1.5	159	1	RECK_RALSO	Q8Y1V5	ralstonia s	186	1	PDJ1_NEIMB	Q9K929	neisseria m
114	6	1.5	159	1	TPCS_HUMAN	P02585	homo sapien	187	1	ADC_CLOAB	P23670	clostridium
115	6	1.5	159	1	TPCS_PIG	P02587	sus scrofa	188	1	PRMA_AQUAE	C67870	aquifex aeo
116	6	1.5	159	1	TPCS_RABIT	P02586	oryctolagus	189	1	Y125_RICPR	P41087	rickettsia
117	6	1.5	162	1	TPCS_PANES	P02589	rana esculae	190	1	KADB_ARATH	Q8FK35	arabidopsis
118	6	1.5	162	1	Y269_AQUAE	O66626	aquifex aeo	191	1	PSB2_THETH	Q8r912	thermoanaer
119	6	1.5	163	1	HMCS_DICDI	P54872	dictyosteli	192	1	PS7B_CLOAB	Q971e0	rhizobium
120	6	1.5	167	1	REV_VILV	P21280	vigna lenti	193	1	DDHD_RHOSU	Q89P22	rhodovulum
121	6	1.5	167	1	REV_VILVK	P35957	vigna lenti	194	1	GS2_HUMAN	P41247	homo sapien
122	6	1.5	168	1	ATPF_PROMO	P21904	propionigen	195	1	TPIS_STEAM	Q945C3	staphylococ
123	6	1.5	172	1	CET2_KENNE	Q9rik9	mus musculu	196	1	COX3_ASCSU	P24879	ascaris suu
124	6	1.5	173	1	HSCB_XENNE	O8gie5	xenorhabdus	197	1	COX3_CABEL	P24891	caenorhabdi
125	6	1.5	173	1	PR1A_HORVU	P32337	hordeum vul	198	1	THYX_SULTO	Q96YF6	sulfolobus
126	6	1.5	177	1	APT_LEPIN	P32337	hordeum vul	199	1	TRYU_DROER	P54629	drosophila
127	6	1.5	177	1	APT_LEPIN	Q8exn2	leptospira	200	1	YHIS_ECOLI	P25946	shope fibro
128	6	1.5	179	1	YFCP_ECOLI	P76499	escherichia	201	1	COBS_RHIME	Q92097	rhizobium m
129	6	1.5	179	1	Y192_VIBCH	Q9KQV6	vibrio chol	202	1	COBV_PSEDE	P23936	pseudomonas
130	6	1.5	180	1	YK72_VIBVU	P59274	vibrio vuln	203	1	TRYU_DROME	P42279	drosophila
131	6	1.5	180	1	YK69_VIBVU	Q7miz4	vibrio vuln	204	1	GLPF_HAEIN	P44826	haemophilus
132	6	1.5	183	1	AROK_OCEIH	Q8enm6	oceanobacil	205	1	NUDC_PASMU	P57965	pasteurella
133	6	1.5	183	1	TBP_MELJA	P51452	homo sapien	206	1	SPED_XANMU	Q8PQ44	xanthomonas
134	6	1.5	185	1	DUS3_MOUSE	Q9d7x3	mus musculu	207	1	SPED_XANMU	Q8PQ44	xanthomonas
135	6	1.5	185	1	PSF2_MOUSE	Q9Y248	mus musculu	208	1	MURI_LISMP	Q8Y7n7	listeria mo
136	6	1.5	185	1	PSF2_MOUSE	Q9d7x3	mus musculu	209	1	YHIS_ECOLI	P25946	shope fibro
137	6	1.5	185	1	PSF2_MOUSE	Q9d7x3	mus musculu	210	1	AG15_ARATH	P14692	sorghum bic
138	6	1.5	185	1	PSF2_MOUSE	Q9d7x3	mus musculu	211	1	IL1B_HORSE	Q38847	arabidopsis
139	6	1.5	185	1	YK10_XYLFA	Q9btx5	xyella fas	212	1	MA51_HUMAN	Q28386	equus cabal
140	6	1.5	186	1	APGB_YEAST	P59310	mus musculu	213	1	MA51_HUMAN	Q28386	equus cabal
141	6	1.5	189	1	APOD_MOUSE	Q93753	arabacia lix	214	1	R330_MOUSE	Q88796	mus musculu
142	6	1.5	190	1	NU5M_ARALI	O13727	schizosacch	215	1	KAF1_SORBI	P14690	sorghum bic
143	6	1.5	190	1	YD07_SCHPO	P29113	agrobacteri	216	1	L181_CHLEU	Q03965	chlamydomon
144	6	1.5	191	1	PIC2_AGRU	P22728	gallus gall	217	1	YHIS_ECOLI	P17089	proteus mir
145	6	1.5	191	1	VISI_CHICK	P22728	gallus gall	218	1	YHIS_ECOLI	P17089	proteus mir
146	6	1.5	193	1	HS72_CANAL	Q48587	candida alb	219	1	YHIS_ECOLI	P17089	proteus mir
147	6	1.5	194	1	PTH_PESPM	Q888c8	pseudomonas	220	1	E2BL_PYPAB	Q9uyb6	pyrococcus
148	6	1.5	199	1	PHB1_HUMAN	P31941	homo sapien	221	1	URED_ECOLI	P23367	synthetococ
149	6	1.5	199	1	PHB1_HUMAN	P31941	homo sapien	222	1	Y422_METTH	Q03285	escherichia
150	6	1.5	201	1	NU6M_CRACA	P48447	saccharomyc	223	1	MODD_HAEIN	Q57278	haemophilus
151	6	1.5	201	1	UL92_HCMVA	P16798	human cytom	224	1	END4_AQUAE	O67551	aquifex aeo
152	6	1.5	205	1	GT51_ASCSU	P46436	ascaris suu	225	1	FDHD_STROO	Q9ZBw0	streptomyce
153	6	1.5	205	1	KGUA_CHLPN	Q92961	chlamydia p	226	1	MIND_CHLVU	P56346	chlorella v
154	6	1.5	206	1	PTCA_HUMAN	Q14761	homo sapien	227	1	STAR_MOUSE	P51557	mus musculu
155	6	1.5	208	1	VG26_BPT4	P13335	bacterioph	228	1	CYST_SVNY3	Q01895	synthetocyst
156	6	1.5	209	1	RRM1_ECOLI	P28692	escherichia	229	1	MIND_MESVI	Q9num5	meostigma
157	6	1.5	210	1	GL34_ARATH	Q9rlt3	arabidopsis	230	1	Y133_ARCFU	Q28147	archaeoglob
158	6	1.5	212	1	COAT_PEBV	P14849	pea early b	231	1	YG2_YEAST	P53072	saccharomyc
159	6	1.5	213	1	KTH2_SULTO	Q970q8	sulfolobus	232	1	T2M3_METJA	Q58017	methanococ
160	6	1.5	218	1	MTC2_METMA	P58983	methanosarc	233	1	ICE6_HUMAN	P55212	homo sapien
161	6	1.5	218	1	S125_GALME	O62605	galleria me	234	1	ENG6_BACHD	Q08921	bacillus ha
162	6	1.5	219	1	GPX5_PIG	O18994	sus scrofa	235	1	MDH_ARCFU	O08349	archaeoglob
163	6	1.5	220	1	CD28_HUMAN	P10747	homo sapien	236	1	SUP2_HUMAN	P80226	homo sapien
164	6	1.5	221	1	CARE_MYXXA	O06910	myxococcus	237	1	YCA7_EUGGR	P31920	euglena gra
165	6	1.5	221	1	GPX5_HUMAN	O75715	homo sapien	238	1	PECM_ERWCH	P42194	erwinia chr
166	6	1.5	221	1	GPX5_MACFA	P28714	macaca fasc	239	1	Y445_YEAST	P48558	saccharomyc
167	6	1.5	221	1	GPX5_HUMAN	P59796	homo sapien	240	1	Y502_TREPA	Q83515	treponema p
168	6	1.5	221	1	GPX5_MOUSE	Q91wr8	mus musculu	241	1	YFAD_ECOLI	P37014	escherichia
169	6	1.5	222	1	THA6_HUMAN	Q8tbb0	homo sapien	242	1	HSLO_PSESM	Q88a25	pseudomonas
170	6	1.5	223	1	VME1_IBVG	Q910e2	avian infec	243	1	OXYR_HAEIN	P44418	haemophilus
171	6	1.5	223	1	YB43_YEAST	P38304	saccharomyc	244	1	PIX3_HUMAN	O75364	homo sapien
172	6	1.5	224	1	PSMB_METJA	Q58634	methanococ	245	1	PIX3_MOUSE	O35160	mus musculu
173	6	1.5	224	1	RADC_PASMU	P57913	pasteurella	246	1	PIX3_MOUSE	O35160	mus musculu
174	6	1.5	224	1	RADC_PASMU	P57913	pasteurella	247	1	APPC_BACSU	P42063	bacillus su
175	6	1.5	226	1	RNC_ECOLI	Q8u036	pyrococcus	248	1	GDFF_RAT	Q20J6	rattus norv
176	6	1.5	226	1	RNC_SALTI	P05797	escherichia	249	1	HEM3_METXA	Q8txc8	methanopyru
177	6	1.5	226	1	RNC_SALTI	Q8z4k4	salmonella	250	1	P2YX_RAT	O35881	rattus norv
178	6	1.5	227	1	PSAF_CHLRE	Q56056	salmonella	251	1	Y007_BRUME	O8veli	brucella me
179	6	1.5	232	1	RADC_BACHD	P12356	chlamydomon	252	1	FDHE_RHIME	Q931d7	rhizobium m

253	6	1.5	306	1	Y910 TREPA	Q83880	treponema p	326	6	1.5	365	1	Y897 ARCFU	Q29365	archaeoglob
254	6	1.5	308	1	FLGJ_VIBPA	Q9x9j3	vibrio para	327	6	1.5	366	1	IHA_HUMAN	P05111	homo sapien
255	6	1.5	308	1	HEM3_STAAM	Q99tj1	staphylococ	328	6	1.5	370	1	V2R_CANFA	P77808	canis famli
256	6	1.5	308	1	HEM3_STAAM	Q34090	staphylococ	329	6	1.5	371	1	PR82_METJA	Q58889	methanococ
257	6	1.5	308	1	HEM3_STAAM	Q8nw74	staphylococ	330	6	1.5	372	1	PR82_METTH	P027092	methanobact
258	6	1.5	308	1	HEM3_STAAP	Q8cnv8	staphylococ	331	6	1.5	372	1	PR82_METTH	P42811	methanobact
259	6	1.5	308	1	YVRB_METAC	Q8thl2	methanosarc	332	6	1.5	372	1	S17B_HUMAN	Q94768	homo sapien
260	6	1.5	308	1	YVRB_METAC	Q8fxj1	brucella su	333	6	1.5	372	1	S17B_HUMAN	Q8bq48	mus musculus
261	6	1.5	309	1	HEM3_OCEIH	Q8cxco	oceanobacil	334	6	1.5	373	1	FLHF_AQUAE	Q67266	aquifex aeo
262	6	1.5	309	1	YVRB_METWA	Q8pxk5	methanosarc	335	6	1.5	374	1	RLUD_NEIMA	Q9jydb6	neisseria m
263	6	1.5	309	1	YVRB_METWA	Q28487	archaeoglob	336	6	1.5	374	1	RLUD_NEIMA	Q9k0b0	neisseria m
264	6	1.5	309	1	YVRB_METWA	Q98h78	rhizobium l	337	6	1.5	375	1	CD14_HUMAN	P08571	homo sapien
265	6	1.5	310	1	HIS1_SCHPO	P40373	rhizosacch	338	6	1.5	375	1	IRKF_CAVPO	O70339	cavia porce
266	6	1.5	310	1	LIPA_PELCA	Q57390	pelobacter	339	6	1.5	375	1	IRKF_HUMAN	O99712	homo sapien
267	6	1.5	311	1	O888_HUMAN	Q15620	homo sapien	340	6	1.5	375	1	IRKF_MOUSE	O88932	mus musculus
268	6	1.5	311	1	OLP2_CANFA	Q85155	canis famli	341	6	1.5	376	1	S18E_HUMAN	O15466	homo sapien
269	6	1.5	312	1	OSJ2_HUMAN	Q8nh18	homo sapien	342	6	1.5	377	1	HEXC_HABIN	P22930	haemophilus
270	6	1.5	312	1	OR01_MOUSE	Q8vgr8	mus musculus	343	6	1.5	377	1	NADA_CAUCR	Q9a4c4	caulobacter
271	6	1.5	313	1	OR02_HUMAN	Q8nge7	homo sapien	344	6	1.5	378	1	PROB_MEIRU	Q92998	meiothermus
272	6	1.5	313	1	OR02_HUMAN	Q8vgr8	homo sapien	345	6	1.5	378	1	PROB_MEIRU	Q92998	meiothermus
273	6	1.5	316	1	OSAP_HUMAN	Q8vgr8	homo sapien	346	6	1.5	378	1	CYB_ANOGA	P33501	anopheles g
274	6	1.5	319	1	YPT5_CABEL	Q8ngf4	homo sapien	347	6	1.5	378	1	CYB_ANOGA	P33501	anopheles q
275	6	1.5	321	1	YVK1_ORISA	P41883	caenorhabdi	348	6	1.5	379	1	CIT2_ECOLI	P05853	escherichia
276	6	1.5	322	1	LIPA_RH1ET	Q8xae6	oryza sativ	349	6	1.5	381	1	ARRC_MOUSE	Q9eqp6	mus musculus
277	6	1.5	322	1	THIL_BUCAT	O5941	rhizobium e	350	6	1.5	381	1	C3L1_MOUSE	Q61362	mus musculus
278	6	1.5	325	1	CYSK_SPIOL	P57532	buchnera ap	351	6	1.5	381	1	CYB_ARTSF	Q37713	artemia san
279	6	1.5	325	1	FAH2_BACSU	Q08034	spinacia ol	352	6	1.5	382	1	SLU7_YEAST	Q02775	saccharomyc
280	6	1.5	326	1	V309_ROT2	O07600	bacillus su	353	6	1.5	383	1	C3L1_HUMAN	P36222	homo sapien
281	6	1.5	327	1	GRP_CLOAR	Q03874	equine rota	354	6	1.5	384	1	OPGC_SALTI	O8z279	salmonella
282	6	1.5	327	1	Y827_CHLTR	Q871j9	clostridium	355	6	1.5	384	1	OPGC_SALTY	O8z279	salmonella
283	6	1.5	328	1	FMT_PROMP	Q84632	chlamydia t	356	6	1.5	385	1	OPGC_ECOL6	O8x3i6	escherichia
284	6	1.5	330	1	PRX4_HUMAN	Q7cuaz	prochloroco	357	6	1.5	385	1	OPGC_ECOLI	Q8f185	escherichia
285	6	1.5	330	1	PHLC_STAAR	Q9byul	homo sapien	358	6	1.5	385	1	OPGC_ECOLI	P75920	escherichia
286	6	1.5	331	1	MOA2_PSEAE	P09978	staphylococ	359	6	1.5	387	1	ARGJ_METKA	O8tx15	m arginine
287	6	1.5	332	1	EPB2_BRARE	Q913k7	pseudomonas	360	6	1.5	387	1	MDMB_STRMY	Q00718	streptomyce
288	6	1.5	333	1	LIPA_RALSO	O73874	brachydanio	361	6	1.5	388	1	ALR_BACHD	Q9k5f9	bacillus ha
289	6	1.5	333	1	LIPB_ARATH	Q8y2d13	larstonia s	362	6	1.5	388	1	CARE_STRTH	P36575	homo sapien
290	6	1.5	333	1	TAL2_YEAST	O23021	arabidopsis	363	6	1.5	388	1	CYB_DICDI	P21542	streptomyce
291	6	1.5	334	1	MDHM_YEAST	P53228	saccharomyc	364	6	1.5	389	1	S1R2_MOUSE	Q8vqg8	mus musculus
292	6	1.5	334	1	YMT1_YEAST	P17505	saccharomyc	365	6	1.5	392	1	PATA_BACSU	P16524	bacillus su
293	6	1.5	336	1	LEU3_MYCLE	Q4212	saccharomyc	366	6	1.5	392	1	SYT_AQUAE	O67632	aquifex aeo
294	6	1.5	338	1	FLIG_BACSU	O33117	mycobacteri	367	6	1.5	394	1	FEUC_BACSU	P40411	bacillus su
295	6	1.5	339	1	CWC2_YEAST	P23448	bacillus su	368	6	1.5	394	1	Y129_CHLPN	Q9jtx2	chlamydia p
296	6	1.5	340	1	RRNG_XENLA	Q12046	saccharomyc	369	6	1.5	397	1	CBAC_COMTE	Q42358	comamonas t
297	6	1.5	341	1	HEAD_BPHH8	P79949	xenopus lae	370	6	1.5	400	1	FBI1_CUPWR	P49244	cuphea wrig
298	6	1.5	341	1	T2D6_MOUSE	P05481	bacterioph	371	6	1.5	402	1	FBI2_CUPWR	P49245	cuphea wrig
299	6	1.5	343	1	GP81_MOUSE	Q9ric0	mus musculus	372	6	1.5	404	1	FABH_ARATH	P49243	arabidopsis
300	6	1.5	343	1	RADA_HALN1	Q8c131	mus musculus	373	6	1.5	407	1	ELK3_HUMAN	P41970	homo sapien
301	6	1.5	344	1	ARC2_THETH	Q8hmm4	halobacteri	374	6	1.5	408	1	EC8B_BACSU	P55340	bacillus su
302	6	1.5	346	1	GP81_HUMAN	O50146	thermus the	375	6	1.5	408	1	GDH_PIG	P81140	sus scrofa
303	6	1.5	349	1	T2D6_HUMAN	Q8bxc0	homo sapien	376	6	1.5	409	1	MCRD_ECOLI	P27301	escherichia
304	6	1.5	351	1	CD2_HUMAN	Q15545	homo sapien	377	6	1.5	409	1	PEXC_PICPA	Q01361	picchia past
305	6	1.5	351	1	OTCC_OENOE	P06729	homo sapien	378	6	1.5	409	1	SYH_ARCFU	O28631	archaeoglob
306	6	1.5	352	1	TWO3_HUMAN	Q8vw55	oenococcus	379	6	1.5	410	1	KYK2_DICDI	P18161	dictyosteli
307	6	1.5	352	1	TLH1_HUMAN	Q9y4r7	homo sapien	380	6	1.5	412	1	ALIC_BACSU	O32149	bacillus su
308	6	1.5	353	1	YK50_YEAST	P36151	saccharomyc	381	6	1.5	412	1	NH64_CABEL	O44960	caenorhabdi
309	6	1.5	353	1	RADA_XALHA	Q83747	halobacteri	382	6	1.5	413	1	CYCL_DROME	O61734	drosophila
310	6	1.5	354	1	ALF_XANFL	Q86815	xanthobacte	383	6	1.5	414	1	LIP5_YEAST	P32875	saccharomyc
311	6	1.5	354	1	WN11_CHICK	Q93339	gallus gall	384	6	1.5	415	1	EX7L_MICTU	O53456	mycobacteri
312	6	1.5	354	1	WN11_COTUA	P51891	coturnix co	385	6	1.5	416	1	AROA_ARCFU	O28775	archaeoglob
313	6	1.5	356	1	VP36_CANFA	P49256	canis famli	386	6	1.5	417	1	GEIS_XENLA	P14885	xenopus lae
314	6	1.5	356	1	VP36_HUMAN	Q12907	homo sapien	387	6	1.5	417	1	O8SE_DROME	P81924	drosophila
315	6	1.5	357	1	FIBP_CERAE	O46431	carcophithe	388	6	1.5	419	1	AROA_METTH	O26860	methanobact
316	6	1.5	357	1	RPI1_CHLTE	Q8kg45	chlorobium	389	6	1.5	419	1	HASA_STRPY	O54865	methanobact
317	6	1.5	359	1	ALF1_RHIME	P88336	rhizobium m	390	6	1.5	419	1	SEP2_DROME	P54359	drosophila
318	6	1.5	359	1	ELV2_HUMAN	Q12926	homo sapien	391	6	1.5	420	1	PROA_PASMU	Q9cm98	palestralla
319	6	1.5	360	1	ELV2_MOUSE	Q12926	homo sapien	392	6	1.5	421	1	MUAI_CLOPE	O28167	clostridium
320	6	1.5	361	1	SYWM_HUMAN	Q60899	mus musculus	393	6	1.5	422	1	ENO_STRTR	O52191	streptococ
321	6	1.5	361	1	YB19_SYNY3	Q8ugm6	homo sapien	394	6	1.5	422	1	YUO_BACSU	O32156	bacillus su
322	6	1.5	364	1	FIBP_HUMAN	P73341	synechocyst	395	6	1.5	424	1	ENO_CHLTR	O84591	chlamydia t
323	6	1.5	364	1	IS68_PRVKA	O43427	homo sapien	396	6	1.5	425	1	SECV_ODOSI	P49461	odontella s
324	6	1.5	364	1	OPSG_CAVFO	P24827	pseudorabie	397	6	1.5	425	1	SY8_DEIRA	Q9ruv5	deinococcus
325	6	1.5	364	1	OPSG_RABIT	Q8r024	cavia porce	398	6	1.5	425	1	TIG_THEMEA	Q9wzf8	thermocoga
						O48910	oryctolagus								

[illegible]

```

CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
-----
DR EMBL; AF014152; AAM79412.1; -
DR EMBL; AF005144; BAC64039.1; -
KW Antigen; Complete proteome.
SQ SEQUENCE 199 AA; 22101 MW; 3558DDF864AC0F7C CRC64;

Query Match 2.0%; Score 8; DB 1; Length 199;
Best Local Similarity 100.0%; Pred. No. 2.8;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 42 KNSITDSQ 49
DB 79 KNSITDSQ 86

RESULT 3
PVA STRP8
ID PVA STRP8 STANDARD; PRT; 199 AA.
AC Q8PI20;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DE Pneumococcal vaccine antigen A homolog.
GN PVA OR SPVM18 1107.
OS Streptococcus pyogenes (serotype M18).
OC Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=186103;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=MGAS8232 / Serotype M18;
RX MEDLINE=21927593; PubMed=11917108;
RA Smoot J.C., Barbian K.D., Van Gompel J.J., Smoot L.M., Chaussee M.S.,
RA Sylva G.L., Sturdevant D.E., Ricklefs S.M., Porcella S.F.,
RA Parkins L.D., Beres S.B., Campbell D.S., Smith T.M., Zhang Q.,
RA Kapur V., Daly J.A., Veasy L.G., Musser J.M.;
RT "Genome sequence and comparative microarray analysis of serotype M18
RT group A Streptococcus strains associated with acute rheumatic fever
RT outbreaks.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:4668-4673 (2002).
CC -!- SUBCELLULAR LOCATION: Cell surface (By similarity).
-----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
-----
DR EMBL; AF010036; AAL97729.1; -
DR Antigen; Complete proteome.
SQ SEQUENCE 199 AA; 22071 MW; 8258DDF85B96C12A1 CRC64;

Query Match 2.0%; Score 8; DB 1; Length 199;
Best Local Similarity 100.0%; Pred. No. 2.8;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 42 KNSITDSQ 49
DB 79 KNSITDSQ 86

RESULT 3
PVA STRP8
ID PVA STRP8 STANDARD; PRT; 199 AA.
AC Q99ZN9;

```

```

DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Pneumococcal vaccine antigen A homolog.
GN PVA OR SP1147.
OS Streptococcus pyogenes.
OC Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;
OC Streptococcus.
OX NCBI_TaxID=1314;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=SF370 / ATCC 700294 / Serotype M1;
RX MEDLINE=21192684; PubMed=11296296;
RA Ferretti J.J., McShan W.M., Ajdic D.J., Savic D.J., Savic G., Lyon K.,
RA Primeaux C., Sezate S., Suvorov A.N., Kenton S., Lai H.S., Lin S.P.,
RA Qian Y., Jia H.G., Najjar F.Z., Ren Q., Zhu H., Song L., White J.,
RA Yuan X., Clifton S.W., Roe B.A., McLaughlin R.;
RT "Complete genome sequence of an M1 strain of Streptococcus pyogenes.";
RL Proc. Natl. Acad. Sci. U.S.A. 98:4658-4663 (2001).
CC -!- SUBCELLULAR LOCATION: Cell surface (By similarity).
-----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
-----
DR EMBL; AE006556; AAK34019.1; -
DR Antigen; Complete proteome.
SQ SEQUENCE 199 AA; 22072 MW; B455653B96C1A89 CRC64;

Query Match 2.0%; Score 8; DB 1; Length 199;
Best Local Similarity 100.0%; Pred. No. 2.8;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 42 KNSITDSQ 49
DB 79 KNSITDSQ 86

RESULT 4
DNAK LISIN
ID DNAK LISIN STANDARD; PRT; 612 AA.
AC Q92B8;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DE Chaperone protein dnaK (Heat shock protein 70) (Heat shock 70 kDa
DE protein) (HSP70).
GN DNAK OR LIN1510.
OS Listeria innocua.
OC Bacteria; Firmicutes; Bacillales; Listeriaceae; Listeria.
OX NCBI_TaxID=1642;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=CLIP 11262 / Serovar 6a;
RX MEDLINE=21537279; PubMed=11679669;
RA Glaser P., Frangeul L., Buchrieser C., Rusniok C., Amend A.,
RA Baquero F., Berche P., Bloeker H., Brandt P., Chakraborty T.,
RA Charbit A., Cherouani P., Couve E., de Darvar A., Dehoux P.,
RA Domann E., Dominguez-Bernal G., Duchaud E., Durant L., Dussauguet O.,
RA Entian K.-D., Feihl H., Garcia-Lopez N., Hain T., Hauf J., Jackson D.,
RA Gautier L., Goebel W., Gomez-Lopez N., Kuhn M., Kunst F., Kurapkat G.,
RA Jones L.-M., Kaerst U., Kretz J., Kuhn M., Kunst F., Nedjari H.,
RA Madueno E., Maitournam A., Mata Vicente J., Ng E., Nedjari H.,
RA Nordstedt G., Novella S., de Pablos B., Perez-Diaz J.-C., Purcell R.,
RA Remmel B., Rose M., Schlueter T., Simoes N., Tierrez A.,
RA Vazquez-Boland J.-A., Voss H., Wehland J., Cossart P.;
RT "Comparative genomics of Listeria species.";
RL Science 294:849-852 (2001).
CC -!- FUNCTION: Acts as a chaperone (By similarity).

```

```

CC -!- INDUCTION: By stress conditions e.g. heat shock (By similarity).
CC -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; AL596168; CAC96741.1; -
CC PIR; AE1621; AE1621.
CC Listinlist; LINO1510; -.
CC HAMAP; MF_00332; -; 1.
CC InterPro; IPR001023; Hsp70.
CC Pfam; PF00012; HSP70; 1.
CC PRINTS; PR00301; HEATSHOCK70.
CC ProDom; PD000089; Hsp70; 1.
CC PROSITE; PS00297; HSP70_1; 1.
CC PROSITE; PS00329; HSP70_2; 1.
CC PROSITE; PS01036; HSP70_3; 1.
CC KX Chaperone; ATP-binding; Heat shock; Phosphorylation;
CC KW Complete proteome.
CC FT INIT MET 0 BY SIMILARITY.
CC FT MOD_RES 172 172 PHOSPHORYLATION (AUTO-) (BY SIMILARITY).
CC SQ SEQUENCE 612 AA; 65997 MW; E38C2CE2238E808 CRC64;

Query Match 2.0%; Score 8; DB 1; Length 612;
Best Local Similarity 100.0%; Pred. No. 7.3;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 390 TDEEIEKM 397
Db 477 TDEEIEKM 484
|||||

RESULT 5
DNAME LISMO STANDARD; PRT; 612 AA.
AC Q955A4;
DT 16-OCT-2001 (Rel. 40, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Chaperone protein dnaK (Heat shock protein 70) (Heat shock 70 kDa
DE protein) (HSP70).
DE DNAME OR LMO1473.
OS Listeria monocytogenes.
OC Bacteria; Firmicutes; Bacillales; Listeriaceae; Listeria.
OX NCBI_TaxID=1639;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=10403S;
RX MEDLINE=20163771; PubMed=10701836;
RA Hanawa T., Kai M., Kamiya S., Yamamoto T.;
RA "Cloning, sequencing, and transcriptional analysis of the dnaK heat
RT shock operon of Listeria monocytogenes.";
RL Cell Stress Chaperones 5:21-29(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=EGD-e / Serovar 1/2a;
RX MEDLINE=21537279; PubMed=11679669;
RA Glaser P., Frangeul L., Buchrieser C., Rusniok C., Amend A.,
RA Baquero F., Berche P., Bloeker H., Brandt P., Chakraborty T.,
RA Charbit A., Cherouani F., Couve E., de Daruvar A., Deloux P.,
RA Domann E., Dominguez-Bernal G., Duchaud E., Durant L., Dussurget O.,
RA Encian K.-D., Feih H., Garcia-del Portillo F., Garrido P.,
RA Gautier L., Goebel W., Gomez-Lopez N., Hain T., Hauf J., Jackson D.,
RA Jones L.-M., Kaerst U., Kref J., Kuhn M., Kunst F., Kurapkat G.,
RA Madueno E., Maitournam A., Mata Vicente J., Ng E., Nedjati H.,
RA Nordsiek G., Novella S., de Pablo B., Perez-Diaz J.-C., Purcell R.,
RA Remmel B., Rose M., Schluter T., Simoes N., Tierrez A.,
RA Vazquez-Boland J.-A., Voss H., Wehland J., Cossart P.;

```

```

RT "Comparative genomics of Listeria species.";
RL Science 294:849-852(2001).
CC -!- FUNCTION: Acts as a chaperone (By similarity).
CC -!- INDUCTION: By stress conditions e.g. heat shock (By similarity).
CC -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; AB023064; BA82789.1; -
CC EMBL; AL591979; CAC95551.1; -
CC PIR; A1258; A1258.
CC PIR; T43738; T43738.
CC HSP; P04475; IDG4.
CC Listinlist; LMO01473; -.
CC HAMAP; MF_00332; -; 1.
CC InterPro; IPR001023; Hsp70.
CC Pfam; PF00012; HSP70; 1.
CC PRINTS; PR00301; HEATSHOCK70.
CC ProDom; PD000089; Hsp70; 1.
CC PROSITE; PS00297; HSP70_1; 1.
CC PROSITE; PS00329; HSP70_2; 1.
CC PROSITE; PS01036; HSP70_3; 1.
CC KW Chaperone; ATP-binding; Heat shock; Phosphorylation;
CC KW Complete proteome.
CC FT INIT MET 0 BY SIMILARITY.
CC FT MOD_RES 172 172 PHOSPHORYLATION (AUTO-) (BY SIMILARITY).
CC FT CONFLICT 243 243 S>F (IN REF. 1).
CC SQ SEQUENCE 612 AA; 66012 MW; 4D6D2120C238BFC4 CRC64;

Query Match 2.0%; Score 8; DB 1; Length 612;
Best Local Similarity 100.0%; Pred. No. 7.3;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 390 TDEEIEKM 397
Db 477 TDEEIEKM 484
|||||

RESULT 6
DNAME LISMO STANDARD; PRT; 1138 AA.
AC Q8CHG7;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE PDZ domain containing guanine nucleotide exchange factor 1 (PDZ-GEF1
DE (Fragment)).
DE DNAME OR KIAA0313.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=22353125; PubMed=12465718;
RA Okazaki N., Kikuno R., Ohara R., Inamoto S., Hara Y., Nagase T.,
RA Ohara O., Koga H.;
RT "Prediction of the coding sequences of mouse homologues of KIAA gene:
RT cDNAs identified by screening of terminal sequences of cDNA clones
RT randomly sampled from size-fractionated libraries.";
RL DNA Res. 9:179-188(2002).
CC -!- FUNCTION: Guanine nucleotide exchange factor (GEF) for Rap1 and
CC Rap2 GTPases (By similarity).
CC -!- SIMILARITY: Contains 1 PDZ/DHR domain.
CC -!- SIMILARITY: Contains 1 Ras-associating domain.

```

```

CC -!- SIMILARITY: Contains 1 Ras-GEF domain.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; AB093228; BAC41412.1; -.
CC PIR; PT0615; PT0686.
CC MGI; MGI:2659071; Pdzgef1.
CC InterPro; IPR001478; PDZ.
CC InterPro; IPR000159; RA_domain.
CC InterPro; IPR008937; Ras_GEF.
CC InterPro; IPR001895; RasGRF_CDC25.
CC Pfam; PF00595; PDZ; 1.
CC Pfam; PF00788; RA; 1.
CC Pfam; PF00617; RasGEF; 1.
CC SMART; SM00228; PDZ; 1.
CC SMART; SM00314; RA; 1.
CC SMART; SM00147; RasGEF; 1.
CC PROSITE; PS0106; PDZ; 1.
CC PROSITE; PS0200; RA; 1.
CC PROSITE; PS0009; RasGEF CAT; 1.
CC Guanine-nucleotide releasing factor.
CC NON_TER 1
CC DOMAIN 27 112 PDZ-ASSOCIATING.
CC DOMAIN 248 334 RAS-ASSOCIATING.
CC DOMAIN 359 586 RAS-GEF.
CC DOMAIN 749 807 SER-RICH.
CC DOMAIN 1040 1121 PRO-RICH.
CC SEQUENCE 1138 AA; 126098 MW; 548D4D6BEF364CB1 CRC64;
CC -----
Query Match 2.0%; Score 8; DB 1; Length 1138;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 83 QALKKILS 90
DB 723 QALKKILS 730
-----
RESULT 7
KF4A XENLA
ID KF4A XENLA STANDARD; PRT; 1226 AA.
AC Q91784; O9PSIO;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Chromosome-associated kinesin KLP1 (Chromokinesin).
GN KLP1.
OS Xenopus laevis (African clawed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidae;
OC Xenopodinae; Xenopus.
OC NCBI_TaxID=8355;
OX [1]
RN [1]
RP SEQUENCE FROM N.A., FUNCTION, SUBCELLULAR LOCATION, AND TISSUE
SPECIFICITY.
RC TISSUE=Oocyte;
RX MEDLINE=95236444; PubMed=7720067;
RA Vernos I., Raats J., Hirano T., Heasman J., Karsenti E., Wylie C.;
RT "Xklp1, a chromosomal Xenopus kinesin-like protein essential for
RT spindle organization and chromosome positioning.";
RL Cell 81:117-127(1995).
RN [2]
RP SEQUENCE OF 9-338 FROM N.A.
RX MEDLINE=93246065; PubMed=8482413;
RA Vernos I., Heasman J., Wylie C.;
RT "Multiple kinesin-like transcripts in Xenopus oocytes.";

```

```

RL Dev. Biol. 157:232-239(1993).
CC -!- FUNCTION: REQUIRED FOR MITOTIC CHROMOSOMAL POSITIONING AND BIPOLAR
CC SPINDLE STABILIZATION. Nuclear. Associated with mitotic
CC -!- SUBCELLULAR LOCATION: Nuclear. Associated with mitotic
CC chromosomes.
CC -!- TISSUE SPECIFICITY: Expressed in oocytes, eggs, testes and
CC brain.
CC -!- SIMILARITY: Belongs to the kinesin-like protein family.
CC Chromokinesin subfamily.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; X82012; CAA57539.1; -.
CC PIR; I51617; I51617.
CC HSP; P17119; 3KAR.
CC InterPro; IPR001752; Kinesin_motor.
CC Pfam; PF00225; Kinesin; 1.
CC PRINTS; PR00380; KINESINHEAVY.
CC SMART; SM00129; KISC; 1.
CC PROSITE; PS00411; KINESIN MOTOR DOMAIN; 1.
CC PROSITE; PS00667; KINESIN MOTOR DOMAIN2; 1.
CC Motor protein; Microtubule; ATP-binding; DNA-binding;
CC Nuclear protein; Coiled coil.
CC DOMAIN 1 350 KINESIN-MOTOR.
CC DOMAIN 351 1006 COILED COIL (BY SIMILARITY).
CC DOMAIN 1007 1226 GLOBULAR.
CC NP_BIND 87 94 ATP (POTENTIAL).
CC CONFLICT 163 163 1 -> L (IN REF. 2).
CC SEQUENCE 1226 AA; 138923 MW; 7F0275FCF3316697 CRC64;
CC -----
Query Match 2.0%; Score 8; DB 1; Length 1226;
Best Local Similarity 100.0%; Pred. No. 13;
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 391 DEEIEKMK 398
DB 974 DEEIEKMK 981
-----
RESULT 8
PGF1 HUMAN
ID PGF1 HUMAN STANDARD; PRT; 1499 AA.
AC Q9Y4G8;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE PDZ domain containing guanine nucleotide exchange factor 1 (PDZ-GEF1)
DE (RA-GEF).
GN PDZGEF1 OR KIAA0313.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OC NCBI_TaxID=9606;
OX [1]
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=97349984; PubMed=9205841;
RA Nagase T., Ishikawa K.-I., Nakajima D., Ohira M., Seki N.,
RA Miyajima N., Tanaka A., Kotani H., Nomura N., Ohara O.;
RT "Prediction of the coding sequences of unidentified human genes. VII.
RT The complete sequences of 100 new cDNA clones from brain which can
RT code for large proteins in vitro.";
RL DNA Res. 4:141-150(1997).
RN [2]
RP FUNCTION.
RX MEDLINE=20076489; PubMed=10608883;
RA de Rooij J., Boenink N.M., van Triest M., Cool R.H., Wittinghofer A.,

```

RA Bos J.L.;  
RT "PDZ-GEF1, a guanine nucleotide exchange factor specific for Rap1 and  
RT Rap2.";  
RL J. Biol. Chem. 274:38125-38130(1999).  
RN [3]  
RP FUNCTION, AND TISSUE SPECIFICITY.  
RX MEDLINE=20519575; PubMed=1034404;  
RA Rebhun J.F., Castro A.F., Quilliam L.A.;  
RT "Identification of guanine nucleotide exchange factors (GEFs) for the  
RT Rap1 GTPase. Regulation of MR-GEF by M-Ras-GTP interaction.";  
RL J. Biol. Chem. 275:34901-34908(2000).  
CC -1- FUNCTION: Guanine nucleotide exchange factor (GEF) for Rap1A and  
CC Rap2B GTPases. It does not interact with cAMP or cGMP.  
CC -1- TISSUE SPECIFICITY: Highest expression levels in brain. Lower  
CC expression levels in heart, kidney, lung, and placenta.  
CC -1- SIMILARITY: Contains 1 cyclic nucleotide-binding domain.  
CC -1- SIMILARITY: Contains 1 N-terminal Ras-GEF domain.  
CC -1- SIMILARITY: Contains 1 PDZ/DHR domain.  
CC -1- SIMILARITY: Contains 1 Ras-associating domain.  
CC -1- SIMILARITY: Contains 1 Ras-GEF domain.  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation  
CC at the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AB002311; BAA20772.1; -  
CC GenBank; HGNC:16854; PDZGEF1.  
CC InterPro; IPR000595; PDZGEF1.  
CC InterPro; IPR001478; PDZ\_binding.  
CC InterPro; IPR000159; RA\_domain.  
CC InterPro; IPR008937; Ras\_GEF.  
CC InterPro; IPR000651; RasGEFN.  
CC InterPro; IPR001895; RasGEF\_CDC25.  
CC Pfam; PF00027; CNMP\_binding; 1.  
CC Pfam; PF00595; PDZ; 1.  
CC Pfam; PF00788; RA; 1.  
CC Pfam; PF00617; RasGEF; 1.  
CC Pfam; PF00618; RasGEFN; 1.  
CC SMART; SM00100; CNMP; 1.  
CC SMART; SM00228; PDZ; 1.  
CC SMART; SM00314; RA; 1.  
CC SMART; SM00147; RasGEF; 1.  
CC SMART; SM00229; RasGEFN; 1.  
CC PROSITE; PS50042; CNMP\_BINDING\_3; 1.  
CC PROSITE; PS50106; PDZ; 1.  
CC PROSITE; PS50200; RA; 1.  
CC PROSITE; PS50009; RasGEF\_CAT; 1.  
CC PROSITE; PS50212; RasGEF\_NTER; 1.  
CC Guanine-nucleotide releasing factor.  
KW NP\_BIND 135 254  
FT DOMAIN 267 380 N-TERMINAL RAS-GEF.  
FT DOMAIN 385 470 PDZ.  
FT DOMAIN 606 692 RAS-ASSOCIATING.  
FT DOMAIN 717 944 RAS-GEF.  
FT DOMAIN 1108 1166 SER-RICH.  
SQ SEQUENCE 1499 AA; 167415 MW; 1909E8A12637E001 CRC64;  
  
Query March 2.08; Score 8; DB 1; Length 1499;  
Best Local Similarity 100.0%; Pred. No. 16;  
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 83 QALKKILS 90  
DB 1082 QALKKILS 1089  
  
RESULT 9  
SUGES CITFR  
ID SUGES CITFR STANDARD; PRT; 104 AA.  
  
Query Match 2.08; Score 8; DB 1; Length 1499;  
Best Local Similarity 100.0%; Pred. No. 16;  
Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 83 QALKKILS 90  
DB 1082 QALKKILS 1089

P20928;  
01-FEB-1991 (Rel. 17, Created)  
01-FEB-1991 (Rel. 17, Last sequence update)  
30-MAY-2000 (Rel. 39, Last annotation update)  
DE SUGES protein homolog.  
GN SUGES.  
OS Proteus vulgaris.  
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;  
OC Enterobacteriaceae; Proteus.  
OX NCBI\_TaxID=585;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=88004470; PubMed=3308458;  
RA Cole S.T.;  
RT "Nucleotide sequence and comparative analysis of the frd operon  
RT encoding the fumarate reductase of Proteus vulgaris. Extensive  
RT sequence divergence of the membrane anchors and absence of an  
RT frd-linked ampC cephalosporinase Gene.";  
RL Eur. J. Biochem. 167:481-488(1987).  
CC -1- FUNCTION: COULD ACT AS A CHAPERONE (BY SIMILARITY).  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (Potential).  
CC -1- SIMILARITY: Belongs to the small multidrug resistance (SMR)  
CC protein family.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation  
CC at the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; X06151; CAA29512.1; -  
CC PIR; S00120; S00120.  
CC InterPro; IPR000390; Smr.  
CC Pfam; PF00893; Multi\_Drug\_Res; 1.  
CC Chaperone; Transmembrane.  
FT TRANSMEM 1 21 POTENTIAL.  
FT TRANSMEM 29 49 POTENTIAL.  
FT TRANSMEM 58 78 POTENTIAL.  
FT TRANSMEM 84 104 POTENTIAL.  
SQ SEQUENCE 104 AA; 11014 MW; 1A1FA4C9C7A94955 CRC64;  
  
Query Match 1.78; Score 7; DB 1; Length 104;  
Best Local Similarity 100.0%; Pred. No. 17;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 135 LTPSIIT 141  
DB 29 LTPSIIT 35  
  
RESULT 10  
SUGES CITFR  
ID SUGES CITFR STANDARD; PRT; 105 AA.  
AC O69279;  
DT 15-DEC-1998 (Rel. 37, Created)  
DT 15-DEC-1998 (Rel. 37, Last sequence update)  
DT 30-MAY-2000 (Rel. 39, Last annotation update)  
DE SUGES protein homolog.  
GN SUGES.  
OS Citrobacter freundii.  
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;  
OC Enterobacteriaceae; Citrobacter.  
OX NCBI\_TaxID=546;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX STRAIN=OS60;  
RX MEDLINE=98344100; PubMed=9677290;  
RA Bishop R.E., Leski B.K., Hodges R.S., Kay C.M., Weiner J.H.;  
RT "The entericidin locus of Escherichia coli and its implications for  
RT programmed bacterial cell death.";  
RT J. Mol. Biol. 280:583-596(1998).



CC -!- FUNCTION: COULD ACT AS A CHAPERONE (BY SIMILARITY).  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (potential).  
CC -!- SIMILARITY: Belongs to the small multidrug resistance (SMR)  
CC protein family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; U2127; AAC46457.1; -  
CC InterPro; IPR000390; Smr.  
CC Pfam; PF00893; Multi Drug Res; 1.  
CC Chapterone; Transmembrane; Transport.  
CC TRANSMEM 1 21 POTENTIAL.  
CC TRANSMEM 29 49 POTENTIAL.  
CC TRANSMEM 58 78 POTENTIAL.  
CC TRANSMEM 82 102 POTENTIAL.  
CC SEQUENCE 105 AA; 10897 MW; 62DA129ADA86E765 CRC64;  
CC -----  
CC Query Match 1.7%; Score 7; DB 1; Length 105;  
CC Best Local Similarity 100.0%; Pred. No. 17;  
CC Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
CC  
CC QY 135 LTPSIIT 141  
CC |||||  
CC Db 29 LTPSIIT 35  
CC -----  
CC RESULT 11  
CC PTSN\_BRAJA STANDARD; PRT; 153 AA.  
CC ID PTSN\_BRAJA  
CC AC P30335;  
CC DT 01-APR-1993 (Rel. 25, Created)  
CC DT 28-FEB-2003 (Rel. 41, Last sequence update)  
CC DT 10-OCT-2003 (Rel. 42, Last annotation update)  
CC DE Nitrogen regulatory IIA protein (EC 2.7.1.69) (Enzyme IIA-NTR)  
CC DE (Phosphotransferase enzyme II, A component).  
CC GN PTSN OR BLR0725.  
CC OS Bradyrhizobium japonicum.  
CC OC Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;  
CC OC Bradyrhizobiaceae; Bradyrhizobium.  
CC OX NCBI\_TaxID=375;  
CC RN [1]  
CC RP SEQUENCE FROM N.A.  
CC RC STRAIN=USDA 110;  
CC RX MEDLINE=22484998; PubMed=12597275;  
CC RA Kaneko T., Nakamura Y., Sato S., Minamisawa K., Uchiyama T.,  
CC RA Sasamoto S., Watanabe A., Idesawa K., Iriguchi M., Kawashima K.,  
CC RA Kohara M., Matsumoto M., Shampo S., Tsuruoka H., Wada T., Yamada M.,  
CC RA Tabata S.;  
CC RT "Complete genomic sequence of nitrogen-fixing symbiotic bacterium  
CC RT Bradyrhizobium japonicum USDA110."  
CC RL DNA Res. 9:189-197(2002).  
CC RN [2]  
CC RP SEQUENCE OF 1-90 FROM N.A.  
CC RC STRAIN=USDA 110epc4;  
CC RX MEDLINE=91123185; PubMed=1991712;  
CC RA Kullik I., Fritzsche S., Knobel H., Sanjuan J., Hennecke H.,  
CC RA Fischer H.-M.;  
CC RT "Bradyrhizobium japonicum has two differentially regulated,  
CC RT functional homologs of the sigma 54 gene (rpoN).";  
CC RJ. Bacteriol. 173:1125-1138(1991).  
CC CC -!- FUNCTION: Seems to have a role in linking carbon and nitrogen  
CC assimilation (by similarity).  
CC CC -!- CATALYTIC ACTIVITY: Protein N-phosphohistidine + sugar = protein  
CC histidine + sugar phosphate.  
CC CC -!- SUBCELLULAR LOCATION: Cytoplasmic.  
CC CC -!- SIMILARITY: BELONGS TO THE PTS IIA FAMILY.  
CC -----

CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; AP005937; BAC45990.1; -  
CC EMBL; M59243; AAA26243.1; -  
CC PIR; D38179; D38179.  
CC HSP; P31222; IAGJ.  
CC InterPro; IPR002178; PTS\_EIIA\_2.  
CC InterPro; IPR006320; PtsN\_nitro\_regn.  
CC Pfam; PF00359; PTS\_EIIA\_2; 1.  
CC ProDom; PD001689; PTS\_EIIA\_2; 1.  
CC TIGRFAMs; TIGR01419; nitro\_reg\_IIA; 1.  
CC PROSITE; PS00372; PTS\_EIIA\_2; 1.  
CC Phosphotransferase system; Transferase; Phosphorylation;  
CC Complete proteome. 66  
CC MOD\_RES 66  
CC FT MOD\_RES 66 PHOSPHORYLATION (BY SIMILARITY).  
CC SQ SEQUENCE 153 AA; 16455 MW; 9B52C7F34E2D491A CRC64;  
CC -----  
CC Query Match 1.7%; Score 7; DB 1; Length 153;  
CC Best Local Similarity 100.0%; Pred. No. 24;  
CC Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
CC  
CC QY 129 DLVFLLL 135  
CC |||||  
CC Db 97 DLVFLLL 103  
CC -----  
CC RESULT 12  
CC YITZF\_BACSU STANDARD; PRT; 157 AA.  
CC ID YITZF\_BACSU  
CC AC O32068;  
CC DT 15-DEC-1998 (Rel. 37, Created)  
CC DT 15-DEC-1998 (Rel. 37, Last sequence update)  
CC DT 10-OCT-2003 (Rel. 42, Last annotation update)  
CC DE Hypothetical pseudouridine synthase YtzF (EC 4.2.1.70)  
CC DE (Pseudouridylylase synthase) (Uracil hydrolyase).  
CC GN YITZF OR BSU30030.  
CC OS Bacillus subtilis.  
CC OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.  
CC OX NCBI\_TaxID=1423;  
CC RN [1]  
CC RP SEQUENCE FROM N.A.  
CC RC STRAIN=168;  
CC RX MEDLINE=98044033; PubMed=9384377;  
CC RA Kunst F., Ogasawara N., Moszer I., Albertini A.M., Alloni G.,  
CC RA Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,  
CC RA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,  
CC RA Brouillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,  
CC RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,  
CC RA Denizot F., Devine K.M., Dusterhoft A., Ehrlich S.D., Emmerson P.T.,  
CC RA Entian K.D., Errington J., Fabret C., Ferrari E., Foulger D.,  
CC RA Fritz C., Fujita M., Fujita Y., Fuma S., Gallizzi A., Galleron N.,  
CC RA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,  
CC RA Guiseppe G., Guy B.J., Haga K., Halech J., Harwood C.R., Henaut A.,  
CC RA Hilbert H., Holsappel S., Hosono S., Hullo M.P., Itaya M., Jones L.,  
CC RA Joris B., Karamata D., Kasahara Y., Klaerr-Blanchard M., Klein C.,  
CC RA Kobayashi Y., Koetter P., Koningsstein G., Krogh S., Kumano M.,  
CC RA Kurita K., Lapidus A., Lardinis S., Lauber J., Lazarevic V.,  
CC RA Lee S.M., Levine A., Liu H., Masuda S., Maestl D., Nakai S., Noback M.,  
CC RA Medina N., Mellado R.P., Mizuno M., Moestl D., Nakai S., Park S.H.,  
CC RA Noone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,  
CC RA Parro V., Pohl T.M., Portetelle D., Potwollik S., Prescott A.M.,  
CC RA Prasecan B., Pujic P., Purnelle B., Rapoport G., Rey M., Reynolds S.,  
CC RA Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadale Y.,  
CC RA Sato T., Scanlan E., Schleich S., Schroeter R., Scofield F.,  
CC RA Sekiguchi J., Sekowska A., Seror S.J., Seror P., Shin B.S., Soldo B.,  
CC RA Sorokin A., Tacconi E., Takagi T., Takahashi H., Takemaru K.,  
CC RA Takeuchi M., Tamakoshi A., Tanaka T., Terpetra P., Tognoni A.,



RA Toato V., Uchiyama S., Vanderbol M., Vannier F., Vassarotti A.,  
RA Viari A., Wambut R., Wedler E., Wedler H., Weitzenegger T.,  
RA Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto K., Yata K.,  
RA Yoshida K., Yoshikawa H.F., Zumstein E., Yoshikawa H., Danchin A.,  
RT "The complete genome sequence of the Gram-positive bacterium *Bacillus*  
RT *subtilis*,"  
RL Nature 390:249-256(1997).  
CC -1- CATALYTIC ACTIVITY: Uracil + D-ribose 5-phosphate = pseudouridine  
CC -1- 5-phosphate + H<sub>2</sub>O.  
CC -1- SIMILARITY: Belongs to the pseudouridine synthase rsuA family.  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; Z99119; CAB14981.1; --  
DR PIR; H70004; H70004.  
DR Subtilist; BG13940; YtZF.  
DR InterPro; IPR006145; Pseudou synth.  
DR InterPro; IPR00748; Psi\_synth\_RSU.  
DR Pfam; PF00849; Pseudou synth.2; 1.  
DR TIGRFAWS; TIGR00093; TIGR00093; 1.  
DR PROSITE; PS01149; Psi\_RSU; 1.  
KW Hypothetical protein; Lyase; Complete proteome.  
FT ACT SITE 21 21 BY SIMILARITY.  
SQ SEQUENCE 157 AA; 17695 MW; D378BFA41E89DCE1 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 157;  
Best Local Similarity 100.0%; Pred. No. 24; Mismatches 0; Indels 0; Gaps 0;  
Matches 7; Conservative 0;  
Qy 28 DTGFFLL 34  
Db 23 DTGFFLL 29  
  
RESULT 13  
YG6\_YEAST STANDARD; PRT; 165 AA.  
AC P53095;  
DT 01-OCT-1996 (Rel. 34, Created)  
DT 01-OCT-1996 (Rel. 34, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Hypothetical 18.1 kDa protein in MDS3-GCN1 intergenic region.  
GN YGL198W OR G1315.  
OS Saccharomyces cerevisiae (Baker's Yeast).  
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;  
OC Saccharomycetales; Saccharomycetaceae; Saccharomycetes.  
OX NCBI\_TaxID=4932;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=S288C / FY1679;  
RX MEDLINE=97197971; PubMed=9046087;  
RA Coglievina M., Klima R., Bertani I., Delneri D., Zaccaria P.,  
RA Bruschi C.V.;  
RT "Sequencing of a 40.5 kb fragment located on the left arm of  
RT chromosome VII from *Saccharomyces cerevisiae*,"  
RL Yeast 13:55-64(1997).  
CC -1- CAUTION: Ref.1 sequence differs from that shown due to a  
CC frameshift in position 148.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----

DR EMBL; Z72718; CAA36908.1; --  
DR EMBL; X91837; CAA62948.1; ALT\_FRAME.  
DR PIR; S64213; S64213.  
DR Germonline; 141244; --  
DR SGD; S0003164; YGL196W.  
KW Hypothetical protein.  
SQ SEQUENCE 165 AA; 18101 MW; 305A400B8B7F080 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 165;  
Best Local Similarity 100.0%; Pred. No. 25; Mismatches 0; Indels 0; Gaps 0;  
Matches 7; Conservative 0;  
Qy 10 LSGFVLG 16  
Db 84 LSGFVLG 90  
  
RESULT 14  
VB07\_VACCV STANDARD; PRT; 182 AA.  
ID AC P21003;  
DT 01-FEB-1991 (Rel. 17, Created)  
DT 01-FEB-1991 (Rel. 17, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Protein 57 precursor.  
GN B7R.  
OS Vaccinia virus (strain WR), and  
OS Vaccinia virus (strain Copenhagen).  
OC Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;  
OC Orthopoxvirus.  
OX NCBI\_TaxID=10254; 10249;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=WR;  
RX MEDLINE=91259063; PubMed=2045793;  
RA Smith G.L., Chan Y.S., Howard S.T.;  
RT "Nucleotide sequence of 42 kbp of vaccinia virus strain WR from near  
RT the right inverted terminal repeat,"  
RL J. Gen. Virol. 72:1349-1376(1991).  
RN [2]  
RP SEQUENCE FROM N.A.  
RC STRAIN=WR;  
RX MEDLINE=91111982; PubMed=1846491;  
RA Howard S.T., Chan Y.S., Smith G.L.;  
RT "Vaccinia virus homologues of the Shope fibroma virus inverted  
RT terminal repeat proteins and a discontinuous ORF related to the tumor  
RT necrosis factor receptor family,"  
RL Virology 180:633-647(1991).  
RN [3]  
RP SEQUENCE FROM N.A.  
RC STRAIN=Copenhagen;  
RX MEDLINE=91021027; PubMed=2219722;  
RA Goebel S.J., Johnson G.P., Perkus M.E., Davis S.W., Winslow J.P.,  
RA Paoletti E.;  
RT "The complete DNA sequence of vaccinia virus,"  
RL Virology 179:247-266(1990).  
RN [4]  
RP COMPLETE GENOME.  
RC STRAIN=Copenhagen;  
RA Goebel S.J., Johnson G.P., Perkus M.E., Davis S.W., Winslow J.P.,  
RA Paoletti E.;  
RT "Appendix to 'The complete DNA sequence of vaccinia virus',";  
RL Virology 179:517-563(1990).  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; D11079; BAA01837.1; --

```
DR EMBL; M58056; AAA47966.1; -.
DR EMBL; M35027; AAA48204.1; -.
DR PIR; J01801; J01801.
DR PIRSF; PIRSF003778; VAC_C8; 1.
KW Signal.
FT SIGNAL.
FT CHAIN.
SQ SEQUENCE 182 AA; 21312 MW; E3086489CCF3557B CRC64;

Query Match 1.7%; Score 7; DB 1; Length 182;
Best Local Similarity 100.0%; Pred. No. 27;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 138 SIITESC 144
Db 62 SIITESC 68

RESULT 15
ID Y458 METJA STANDARD; PRT; 216 AA.
AC Q57900;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Hypothetical protein MJ0458.
GN MJ0458.
OS Methanococcus jannaschii.
OC Archaea; Euryarchaeota; Methanococci; Methanococcales;
OC Methanocaldococcaceae; Methanocaldococcus.
OX NCBI_TaxID=2190;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96337999; PubMed=8688087;
RA Sulton G.G., Blake O., Olsen G.J., Zhou L., Fleischmann R.D.,
RA Kariavase A.R., Dougherty B.A., Tomb J.-P., Adams M.D., Reich C.I.,
RA Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,
RA Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhmann J.L., Nguyen D.,
RA Uterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C.,
RA Cotton M.D., Roberts K.M., Hurst M.A., Kaine B.P., Borodovsky M.,
RA Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.;
RT "Complete genome sequence of the methanogenic archaeon, Methanococcus
RT jannaschii";
RL Science 273:1058-1073 (1996).

-----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; U67496; AAB98446.1; -.
DR PIR; B64357; B64357.
DR TIGR; MJ0458; -.
DR InterPro; IPR001048; Aa_kinase.
DR Pfam; PF00696; aakinas; 1.
KW Hypothetical protein; Complete proteome.
SQ SEQUENCE 216 AA; 24080 MW; 37856E333F3D2A76 CRC64;

Query Match 1.7%; Score 7; DB 1; Length 216;
Best Local Similarity 100.0%; Pred. No. 32;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEK 256
Db 89 LKREIEK 95

RESULT 16
GPX5_CANFA STANDARD; PRT; 221 AA.
AC O46607;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Epididymal secretory glutathione peroxidase precursor (EC 1.11.1.9)
DE (Epididymis-specific glutathione peroxidase-like protein) (EGLP).
GN GPX5.
OS Canis familiaris (dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=98304457; PubMed=9640275;
RA Beiglböck A., Pera I., Ellerböck K., Kirchhoff C.;
RT "Dog epididymis-specific mRNA encoding secretory glutathione
RT peroxidase-like protein.";
RL J. Reprod. Fert. 112:357-367 (1998).
CC -1- FUNCTION: Protects cells and enzymes from oxidative damage, by
CC catalyzing the reduction of hydrogen peroxide, lipid peroxides and
CC organic hydroperoxide, by glutathione. May constitute a
CC glutathione peroxidase-like protective system against peroxide
CC damage in sperm membrane lipids.
CC -1- CATALYTIC ACTIVITY: 2 glutathione + H(2)O(2) = oxidized
CC glutathione + 2 H(2)O.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Epididymis.
CC -1- SIMILARITY: Belongs to the glutathione peroxidase family.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; AF045195; AAC02550.1; -.
DR HSPF; P00435; IGP1.
DR InterPro; IPR000889; Glut_peroxidase.
DR Pfam; PF00255; GSHPx; 1.
DR PRINTS; PR01011; GLUTPROXDASE.
DR PROSITE; PS00460; GLUTATHIONE_PEROXID_1; FALSE_NEG.
DR PROSITE; PS00763; GLUTATHIONE_PEROXID_2; 1.
KW Oxidoreductase; Peroxidase; Signal.
FT SIGNAL.
FT CHAIN.
FT ACT SITE.
SQ SEQUENCE 221 AA; 25338 MW; C90BF0F0B88C9ACF CRC64;

Query Match 1.7%; Score 7; DB 1; Length 221;
Best Local Similarity 100.0%; Pred. No. 32;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 221 SLOEELK 227
Db 84 SLOEELK 90

RESULT 17
MPGP_PYRFU STANDARD; PRT; 242 AA.
AC Q8U381;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Mannosyl-3-phosphoglycerate phosphatase (EC 3.1.3.70) (MPGP).
GN MNGB OR PF0590.
OS Pyrococcus furiosus.
```

```
CC Archaea; Euryarchaeota; Thermococci; Thermococcales; Thermococcaceae;
CC Pyrococcus.
CC NCBI TaxID=2261;
RN 1) SEQUENCE FROM N.A.
RC STRAIN=Vcl / DSM 3638 / ATCC 43587 / JCM 8422;
RA Weiss R.B., Dunn D.M., Robb F.T., Brown J.R.;
RT "The complete sequence of the Pyrococcus furiosus genome.";
RL Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Hydrolyzes mannosyl-3-phosphoglycerate (MPG) to form the
CC osmolytic mannosylglycerate (MG) (By similarity).
CC -!- CATALYTIC ACTIVITY: 2(alpha-D-mannosyl)-3-phosphoglycerate + H(2)O
CC = 2(alpha-D-mannosyl)-D-glycerate + phosphate.
CC -!- PATHWAY: Biosynthesis of alpha-mannosylglycerate from GDP-mannose;
CC second step.
CC -!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
CC -!- SIMILARITY: Belongs to the HAD superfamily. MFGP family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AE010181; AAL80714.1; -.
CC HAMAP; MF_00617; 1.
CC InterPro; IPR006379; HAD_SF_IIB.
CC TIGRFAMs; TIGR01486; HAD-SF-IIB-YedP; 1.
CC TIGRFAMs; TIGR01484; HAD-SF-IIB; 1.
CC Hydrolase; Complete proteome.
CC SEQUENCE 242 AA; 28022 MW; 133DE5E84FE0AC02 CRC64;
CC
CC Query Match 1.7%; Score 7; DB 1; Length 242;
CC Best Local Similarity 100.0%; Pred. No. 35;
CC Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
CC
CC QY 390 TDEIEK 396
CC DB 119 TDEIEK 125
CC
CC RESULT 18
CC SURE_NITEU STANDARD; PRT; 247 AA.
CC AC Q82V79;
CC DT 15-MAR-2004 (Rel. 43, Created)
CC DT 15-MAR-2004 (Rel. 43, Last sequence update)
CC DE Acid phosphatase sure (EC 3.1.3.2).
CC SURE OR NE0950.
CC OS Nitrosomonas europaea.
CC OC Bacteria; Proteobacteria; Betaproteobacteria; Nitrosomonadales;
CC OC Nitrosomonadaceae; Nitrosomonas.
CC NCBI_TaxID=915;
CC [1]
CC SEQUENCE FROM N.A.
CC STRAIN=ATCC 19718 / IFO 14298;
CC MEDLINE=22596410; PubMed=12700255;
CC Chain P., Lamerdin J.E., Larizer F.W., Regala M., Lao V., Land M.,
CC Hauser L., Hooper A.B., Klorz M.G., Norton J., Sayavedra-Soto L.A.,
CC Arciero D.M., Hommes N.G., Whitaker M.M., Arp D.J.;
CC RT "Complete genome sequence of the ammonia-oxidizing bacterium and
CC obligate chemolithoautotroph Nitrosomonas europaea.";
CC J. Bacteriol. 185:2759-2773(2003).
CC -!- CATALYTIC ACTIVITY: An orthophosphoric monoester + H(2)O = an
CC alcohol + phosphate.
CC -!- COPACTOR: Magnesium (By similarity).
CC -!- SUBCELLULAR LOCATION: Cytoplasmic (Potential).
CC -!- SIMILARITY: Belongs to the sure acid phosphatase family.
CC
```

```
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; BX321859; CAD84861.1; -.
CC HAMAP; MF_00060; 1.
CC InterPro; IPR002828; SureP.
CC Pfam; PF01975; Sure; 1.
CC ProDom; PD005378; Sure; 1.
CC TIGRFAMs; TIGR00087; sure; 1.
CC Hydrolase; Magnesium; Complete proteome.
CC ACT_SITE 123 123 POTENTIAL.
CC METAL 8 8 MAGNESIUM (BY SIMILARITY).
CC METAL 9 9 MAGNESIUM (BY SIMILARITY).
CC METAL 39 39 MAGNESIUM (BY SIMILARITY).
CC METAL 91 91 MAGNESIUM (BY SIMILARITY).
CC SEQUENCE 247 AA; 26851 MW; 173C0E7104B384D1 CRC64;
CC
CC Query Match 1.7%; Score 7; DB 1; Length 247;
CC Best Local Similarity 100.0%; Pred. No. 36;
CC Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
CC
CC QY 29 TEGFLG 35
CC DB 110 TEGFLG 116
CC
CC RESULT 19
CC Y727_METTH STANDARD; PRT; 256 AA.
CC AC Q26823;
CC DT 10-OCT-2003 (Rel. 42, Created)
CC DT 10-OCT-2003 (Rel. 42, Last sequence update)
CC DT 10-OCT-2003 (Rel. 42, Last annotation update)
CC DE Hypothetical UPF0280 protein MTH727.
CC GN MTH727.
CC OS Methanobacterium thermoautotrophicum.
CC OC Archaea; Euryarchaeota; Methanobacteria; Methanobacteriales;
CC OC Methanobacteriaceae; Methanothermobacter.
CC NCBI_TaxID=187420;
CC [1]
CC SEQUENCE FROM N.A.
CC STRAIN=Delta H;
CC MEDLINE=98037514; PubMed=9371463;
CC Smith D.R., Doucette-Stamm L.A., DeLoughery C., Lee H.-M., Dubois J.,
CC Aldredge T., Bashirzadeh R., Blakely D., Cook R., Gilbert K.,
CC Harrison D., Hoang L., Keagle P., Lumm W., Pothier B., Qiu D.,
CC Spadafora R., Vicare R., Wang Y., Wierzbowski J., Gibson R.,
CC Jiwanli N., Caruso A., Bush D., Safer H., Patwell D., Prabhakar S.,
CC McDougall S., Shimer G., Goyal A., Pietrovski S., Church G.M.,
CC Daniels C.J., Mao J.-I., Rice P., Noelling J., Reeve J.N.;
CC RT "Complete genome sequence of Methanobacterium thermoautotrophicum
CC deltaH: functional analysis and comparative genomics.";
CC J. Bacteriol. 179:7135-7155(1997).
CC -!- SIMILARITY: Belongs to the UPF0280 family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AE000852; AAB85232.1; -.
CC PIR; B69197; B69197.
CC HAMAP; MF_01079; 1.
CC InterPro; IPR007183; DUF375.
CC Pfam; PF04040; DUF375; 1.
CC
```

KW Hypothetical protein; Complete proteome.  
SQ SEQUENCE 256 AA; 27294 MW; 43608BF7EC753948 CRC64;

Query Match 1.7%; Score 7; DB 1; Length 256;  
Best Local Similarity 100.0%; Pred. No. 37;  
Matches 7; Conservative 0; Mismatches 0; Gaps 0;

QY 10 LSGFVLG 16  
DB 39 LSGFVLG 45  
|||||

RESULT 20  
YC53 META  
ID YC53 META STANDARD; PRT; 282 AA.  
AC Q58650;  
DT 30-MAY-2000 (Rel. 39, Created)  
DT 30-MAY-2000 (Rel. 39, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Hypothetical protein MJ1253.  
GN MJ1253.  
OS Methanococcus jannaschii.  
OC Archaea; Euryarchaeota; Methanococci; Methanococcales;  
OC Methanocaldococcaceae; Methanocaldococcus.  
OX NCBI\_TaxID=2190;  
RN [1]\_TaxID=2190;  
RP SEQUENCE FROM N.A.  
RC STRAIN=JAL-1 / DSM 2661 / ATCC 43067;  
RX MEDLINE=96337999; PubMed=868087;  
RA Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann R.D.,  
RA Sutton G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D.,  
RA Kerlavage A.R., Dougherty B.A., Tomb J.-F., Adams M.D., Reich C.I.,  
RA Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,  
RA Scott J.L., Geoghegan N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D.,  
RA Uitterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C.,  
RA Cotton M.D., Roberts K.M., Huret M.A., Kaine B.P., Borodovsky M.,  
RA Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.;  
RT "Complete genome sequence of the methanogenic archaeon, Methanococcus  
RT jannaschii.";  
RL Science 273:1058-1073 (1996).  
CC -! SUBCELLULAR LOCATION: Integral membrane protein (Potential).  
CC -! SIMILARITY: Belongs to the secD/secE family.  
CC -----  
CC This SWISS-PROT entry is copyrighted. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; U67565; AAB99256.1; -;  
CC PIR; D64456; D64456.  
CC TIGR; MJ1253; -;  
CC InterPro: IPR003335; SecD\_SecE.  
CC Pfam; PF02355; SecD\_SecE; 1.  
CC KW Hypothetical protein; Protein transport; Translocation; Transmembrane;  
CC Complete proteome.  
CC TRANSNEM 9 29 POTENTIAL.  
CC TRANSNEM 120 140 POTENTIAL.  
CC TRANSNEM 149 169 POTENTIAL.  
CC TRANSNEM 174 194 POTENTIAL.  
CC TRANSNEM 214 234 POTENTIAL.  
CC TRANSNEM 236 256 POTENTIAL.  
CC SEQUENCE 282 AA; 31029 MW; D2AC5859AEEFC1079 CRC64;  
DR  
DR  
DR PIR; D64456; D64456.  
DR TIGR; MJ1253; -;  
DR InterPro: IPR003335; SecD\_SecE.  
DR Pfam; PF02355; SecD\_SecE; 1.  
DR KW Hypothetical protein; Protein transport; Translocation; Transmembrane;  
DR Complete proteome.  
FT TRANSNEM 9 29 POTENTIAL.  
FT TRANSNEM 120 140 POTENTIAL.  
FT TRANSNEM 149 169 POTENTIAL.  
FT TRANSNEM 174 194 POTENTIAL.  
FT TRANSNEM 214 234 POTENTIAL.  
FT TRANSNEM 236 256 POTENTIAL.  
SQ SEQUENCE 282 AA; 31029 MW; D2AC5859AEEFC1079 CRC64;

Query Match 1.7%; Score 7; DB 1; Length 282;  
Best Local Similarity 100.0%; Pred. No. 40;  
Matches 7; Conservative 0; Mismatches 0; Gaps 0;

QY 199 SSXFFEE 205  
DB 114 SSXFFEE 120  
|||||

RESULT 21  
OSTP MOUSE  
ID OSTP MOUSE STANDARD; PRT; 294 AA.  
AC P10923; P19008;  
DT 01-JUL-1989 (Rel. 11, Created)  
DT 01-JUL-1989 (Rel. 11, Last sequence update)  
DT 15-MAR-2004 (Rel. 43, Last annotation update)  
DE Osteopontin precursor (Bone sialoprotein 1) (Minopontin) (Early T  
DE lymphocyte activation 1 protein) (Secreted phosphoprotein 1) (SP-1)  
DE (2AR) (Calcium oxalate crystal growth inhibitor protein).  
GN SPP1 OR SPP-1 OR OP OR ETA-1.  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]\_TaxID=10090;  
RP SEQUENCE FROM N.A.  
RC STRAIN=BALB/c; TISSUE=Liver;  
RX MEDLINE=90354433; PubMed=2387863;  
RA Miyazaki Y., Setoguchi M., Yoshida S.Y., Akizuki S., Yamamoto S.;  
RA Yamamoto S.;  
RT "The mouse osteopontin gene. Expression in monocytic lineages and  
RT complete nucleotide sequence.";  
RL J. Biol. Chem. 265:14432-14438 (1990).  
RN [2]\_TaxID=10090;  
RP SEQUENCE FROM N.A.  
RC TISSUE=Macrophage;  
RX MEDLINE=9263742; PubMed=2726465;  
RA Miyazaki Y., Setoguchi M., Yoshida S., Higuchi Y., Akizuki S.,  
RA Yamamoto S.;  
RT "Nucleotide sequence of cDNA for mouse osteopontin-like protein.";  
RL Nucleic Acids Res. 17:3298-3298 (1989).  
RN [3]\_TaxID=10090;  
RP SEQUENCE FROM N.A.  
RX MEDLINE=9255479; PubMed=2722855;  
RA Craig A.M., Smith J.H., Denhardt D.T.;  
RT "Osteopontin, a transformation-associated cell adhesion  
RT phosphoprotein, is induced by 12-O-tetradecanoylphorbol 13-acetate in  
RT mouse epidermis.";  
RL J. Biol. Chem. 264:9682-9689 (1989).  
RN [4]\_TaxID=10090;  
RP SEQUENCE FROM N.A.  
RX MEDLINE=89310352; PubMed=2787378;  
RA Patarca R., Freeman G.J., Singh R.P., Wei F.-Y., Durfee T.,  
RA Blattner F., Regnier D.C., Kozak C.A., Mock B.A., Morse H.C. III,  
RA Jerrells T.R., Cantor H.;  
RT "Structural and functional studies of the early T lymphocyte  
RT activation 1 (Eta-1) gene. Definition of a novel T cell-dependent  
RT response associated with genetic resistance to bacterial infection.";  
RL J. Exp. Med. 170:145-161 (1989).  
RN [5]\_TaxID=10090;  
RP SEQUENCE FROM N.A.  
RC STRAIN=NMRI; TISSUE=Mammary gland;  
RX MEDLINE=22388257; PubMed=12477932;  
RA Strauberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,  
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,  
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,  
RA Roak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahey J., Heiton E., Kettman M., Madan A.C., Rodriguez S., Sanchez A.,  
RA Whitting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallos D.E.,  
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;  
RT "Generation and initial analysis of more than 15,000 full-length

-----  
 This SWISS-PROT entry is copyright. It is produced through a collaboration  
 -----  
 SWISSPROT

RESULT 24	STANDARD;	FRT; 306 AA.
COAA_STRP8		
ID COAA_STRP8		
AC Q8P0V9;		
DT 28-FEB-2003 (Rel. 41, Created)		
DT 28-FEB-2003 (Rel. 41, Last sequence update)		
DT 28-FEB-2003 (Rel. 41, Last annotation update)		
DE Pantothenate kinase (EC 2.7.1.33) (Pantothenic acid kinase).		

RESULT 24	STANDARD;	FRT; 306 AA.
COAA_STRP8		
ID COAA_STRP8		
AC Q8P0V9;		
DT 28-FEB-2003 (Rel. 41, Created)		
DT 28-FEB-2003 (Rel. 41, Last sequence update)		
DT 28-FEB-2003 (Rel. 41, Last annotation update)		
DE Pantothenate kinase (EC 2.7.1.33) (Pantothenic acid kinase).		

GN COXA OR SPY18.1183.  
 OS Streptococcus pyogenes (serotype M18).  
 CC Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;  
 CC Streptococcus.  
 CC NCBI\_TaxID=136103;  
 CC [1]  
 RP SEQUENCE FROM N.A.  
 RC STRAIN=MGAS8232 / Serotype M18;  
 RX MEDLINE=21921593; PubMed=11917108;  
 RA Smoot J.C., Barbican K.D., Van Gompel J.J., Smoot L.M., Chaussee M.S.,  
 RA Sylva G.L., Sturdevant D.E., Rickles S.M., Porcella S.F.,  
 RA Parkins L.D., Bares S.B., Campbell D.S., Smith T.M., Zhang Q.,  
 RA Kapur V., Daly J.A., Veasy L.G., Musser J.M.;  
 RT "Genome sequence and comparative microarray analysis of serotype M18  
 RT group A Streptococcus strains associated with acute rheumatic fever  
 RT outbreaks";  
 RL Proc. Natl. Acad. Sci. U.S.A. 99:4668-4673(2002).  
 CC -!- CATALYTIC ACTIVITY: ATP + pantothenate = ADP + D-4'-  
 CC phosphopantothenate.  
 CC -!- PATHWAY: Coenzyme A (CoA) biosynthesis; first step.  
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic (Probable).  
 CC -!- SIMILARITY: Belongs to the prokaryotic pantothenate kinase family.  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; AE010043; AAL97799.1; -.  
 DR HAVAP; MF\_00215; -; 1.  
 DR InterPro; IPR004566; Pank\_bact.  
 DR InterPro; IPR006083; PRK\_URK.  
 DR Pfam; PF00485; PRK; 1.  
 DR PIRSF; PIRSF000545; Pantothenate\_kin; 1.  
 KW Transferase; Kinase; ATP-binding; Coenzyme A biosynthesis;  
 KW Complete proteome.  
 FT NP\_BIND 91 98 ATP (POTENTIAL).  
 SQ SEQUENCE 306 AA; 35599 MW; 61FE0F639228374 CRC64;  
 Query Match 1.7%; Score 7; DB 1; Length 306;  
 Best Local Similarity 100.0%; Pred. No. 43;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 223 QEELKSI 229  
 Db 29 QEELKSI 35  
 RESULT 25  
 COXA STRPY STANDARD; PRT; 306 AA.  
 AC Q99ZHL;  
 DT 28-FEB-2003 (Rel. 41, Created)  
 DT 28-FEB-2003 (Rel. 41, Last sequence update)  
 DT 28-FEB-2003 (Rel. 41, Last annotation update)  
 DE Pantothenate kinase (SC 2.7.1.33) (Pantothentic acid kinase).  
 GN COXA OR SPY1233.  
 OS Streptococcus pyogenes.  
 CC Bacteria; Firmicutes; Lactobacillales; Streptococcaceae;  
 CC Streptococcus.  
 CC NCBI\_TaxID=1314;  
 CC [1]  
 RP SEQUENCE FROM N.A.  
 RC STRAIN=SF370 / ATCC 700294 / Serotype M1;  
 RX MEDLINE=21192684; PubMed=11296236;  
 RA Ferretti J.J., McShan W.M., Ajdic D.J., Savic D.J., Savic G., Lyon K.,  
 RA Primeaux C., Seate S., Suvoarov A.N., Kenton S., Lai H.S., Lin S.P.,  
 RA Qian Y., Jia H.G., Najjar F.Z., Ren Q., Zhu H., Song L., White J.,  
 RA Yuan X., Clifton S.W., Roe B.A., McLaughlin R.;  
 RT "Complete genome sequence of an M1 strain of Streptococcus pyogenes.";

RL Proc. Natl. Acad. Sci. U.S.A. 98:4658-4663(2001).  
 CC -!- CATALYTIC ACTIVITY: ATP + pantothenate = ADP + D-4'-  
 CC phosphopantothenate.  
 CC -!- PATHWAY: Coenzyme A (CoA) biosynthesis; first step.  
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic (Probable).  
 CC -!- SIMILARITY: Belongs to the prokaryotic pantothenate kinase family.  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; AE006563; AAK34090.1; -.  
 DR HAVAP; MF\_00215; -; 1.  
 DR InterPro; IPR004566; Pank\_bact.  
 DR InterPro; IPR006083; PRK\_URK.  
 DR Pfam; PF00485; PRK; 1.  
 DR PIRSF; PIRSF000545; Pantothenate\_kin; 1.  
 KW Transferase; Kinase; ATP-binding; Coenzyme A biosynthesis;  
 KW Complete proteome.  
 FT NP\_BIND 91 98 ATP (POTENTIAL).  
 SQ SEQUENCE 306 AA; 35609 MW; 6230FD2725EC9EA4 CRC64;  
 Query Match 1.7%; Score 7; DB 1; Length 306;  
 Best Local Similarity 100.0%; Pred. No. 43;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 223 QEELKSI 229  
 Db 29 QEELKSI 35  
 RESULT 26  
 Y040 BPT4 STANDARD; PRT; 308 AA.  
 AC P39254;  
 DT 01-FEB-1995 (Rel. 31, Created)  
 DT 15-DEC-1998 (Rel. 37, Last sequence update)  
 DT 10-OCT-2003 (Rel. 42, Last annotation update)  
 DE Hypothetical 36.3 kDa protein in nrdC-mobD intergenic region.  
 GN Y040 OR NRDC.3.  
 OS Bacteriophage T4.  
 CC Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;  
 CC T4-like viruses.  
 CC NCBI\_TaxID=10665;  
 CC [1]  
 RP SEQUENCE FROM N.A.  
 RA Mzhavia N., Marusich E., Djavakhishvili T., Neitzel J., Peterson S.,  
 RA Aways M., Eidemiller J., Canada D., Tracy J., Gailbreath K.,  
 RA Paddison P., Anderson B., Stidham T., Blattner F., Kutter E.M.;  
 RT "The 10.7 kb 'nonessential' region of bacteriophage T4 between the  
 RT genes tk and nrdC: twenty new t4 genes, generally conserved among  
 RT T-even phages";  
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=22514363; PubMed=12626685;  
 RA Miller E.S., Kutter E., Mosig G., Arisaka F., Kunisawa T., Ruger W.;  
 RT "Bacteriophage T4 genome.";  
 RL Microbiol. Mol. Biol. Rev. 67:86-156(2003).  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; U76612; AAB26979.1; -.



```
DR EMBL; AF158101; AAD42631.1; -.
KW Hypothetical protein.
SQ SEQUENCE 308 AA; 36293 MW; 4FCF8D4A46061A59 CRC64;

Query Match
Best Local Similarity 1.7%; Score 7; DB 1; Length 308;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 357 FKRSLL 363
DB 65 FKRSLL 71

RESULT 27
OZB2 HUMAN STANDARD; PRT; 322 AA.
AC Q8NGI1;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Olfactory receptor 56B2.
GN OR56B2.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Suwa M., Sato T., Okouchi I., Arita M., Putami K., Matsumoto S.,
RA Tsutsumi S., Aburatani H., Asai K., Akiyama Y.;
RT "Genome-wide discovery and analysis of human seven transmembrane helix
RT receptor genes."
RL Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
CC -1- FUNCTION: Putative odorant receptor.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein.
CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
CC -1- DATABASE: NAME=Human Olfactory Receptor Data Explorer (HORDE);
CC WWW="http://bioinformatics.weizmann.ac.il/cgi-bin/HORDE/showGene.pl?key=symbols";
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AB063814; BAC06033.1; -.
CC Genew; HGNC:15246; OR56B2.
CC InterPro; IPR000276; GPCR_Rhodpsn.
CC Pfam; PF00001; 7tm.1; 1.
CC PROSITE; PS00237; G_PROTEIN_RECP_F1_1; FALSE_NEG.
CC PROSITE; PS00282; G_PROTEIN_RECP_F1_2; 1.
CC G-protein coupled receptor; Transmembrane; Glycoprotein;
CC Multigene family; Olfaction.
CC DOMAIN 1 34 EXTRACELLULAR (POTENTIAL).
CC TRANSMEM 35 55 1 (POTENTIAL).
CC DOMAIN 56 63 CYTOPLASMIC (POTENTIAL).
CC TRANSMEM 64 84 2 (POTENTIAL).
CC DOMAIN 85 108 EXTRACELLULAR (POTENTIAL).
CC TRANSMEM 109 129 3 (POTENTIAL).
CC DOMAIN 130 148 CYTOPLASMIC (POTENTIAL).
CC TRANSMEM 149 169 4 (POTENTIAL).
CC DOMAIN 170 205 EXTRACELLULAR (POTENTIAL).
CC TRANSMEM 206 226 5 (POTENTIAL).
CC DOMAIN 227 245 CYTOPLASMIC (POTENTIAL).
CC TRANSMEM 247 267 6 (POTENTIAL).
CC DOMAIN 268 281 EXTRACELLULAR (POTENTIAL).
CC TRANSMEM 282 302 7 (POTENTIAL).
CC DOMAIN 303 322 CYTOPLASMIC (POTENTIAL).
CC DISULFID 106 198 BY SIMILARITY.
CC CARBOHYD 12 12 N-LINKED (GLCNAC...) (POTENTIAL).
CC SEQUENCE 322 AA; 35955 MW; CFA12F613D1EEF5B CRC64;
SQ
```

```
Query Match
Best Local Similarity 1.7%; Score 7; DB 1; Length 322;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 137 PSIIIES 143
DB 142 PSIIIES 148

RESULT 28
RBSR_BACHD STANDARD; PRT; 331 AA.
AC Q9K6K2;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Ribose operon repressor.
GN RBSR OR BH3727.
OS Bacillus halodurans.
OC Bacteria; Firmicutes; Bacilliales; Bacillaceae; Bacillus.
OX NCBI_TaxID=86665;
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN=C-125 / JCM 9153;
RA MEDLINE=20512582; PubMed=11058132;
RA Takami H., Nakasone K., Takaki Y., Maeno G., Sasaki R., Masui N.,
RA Fuji F., Hirama C., Nakamura Y., Ogasawara N., Kuhara S.,
RA Horikoshi K.;
RT "Complete genome sequence of the alkaliphilic bacterium Bacillus
RT halodurans and genomic sequence comparison with Bacillus subtilis."
RL Nucleic Acids Res. 28:4317-4331(2000).
CC -1- FUNCTION: Transcriptional repressor for the ribose rbsADCBK
CC operon (By similarity).
CC -1- SIMILARITY: Contains 1 HTH lacI-type DNA-binding domain.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AP001519; BAB07446.1; -.
CC HSPSP; P15039; IPRU.
CC InterPro; IPR000843; HTH_LacI
CC Pfam; PF001761; PeriplabP/LacI.
CC Pfam; PF00356; lacI; 1.
CC PRINTS; PR00036; HTHLACI.
CC SMART; SM00354; HTH_LACI; 1.
CC PROSITE; PS00356; HTH_LACI_1; 1.
CC PROSITE; PS00356; HTH_LACI_2; 1.
CC Transcription regulation; Repressor; DNA-binding; Complete proteome.
CC DOMAIN 1 56 HTH_LACI-TYPE.
CC DNA BIND 4 23 H-T-H MOTIF (POTENTIAL).
CC SEQUENCE 331 AA; 36637 MW; DF228BD875BF607F CRC64;
SQ
Query Match
Best Local Similarity 1.7%; Score 7; DB 1; Length 331;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 390 TDEIEK 396
DB 97 TDEIEK 103

RESULT 29
KOGT_ERWCH STANDARD; PRT; 339 AA.
ID KOGT_ERWCH
AC P15701;
```



DT 01-APR-1990 (Rel. 14, Created)  
 DT 30-MAY-2000 (Rel. 39, Last sequence update)  
 DT 15-MAR-2004 (Rel. 43, Last annotation update)  
 DE 2-keto-3-deoxygluconate permease (KDG permease).  
 GN KDG.  
 OS Erwinia chrysanthemi.  
 OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;  
 OC Enterobacteriaceae; Pectobacterium.  
 OX NCBI\_TaxID=556;  
 RN [1]  
 RN SEQUENCE FROM N.A.  
 RP MEDLINE=90060835; PubMed=2684787;  
 RA Allen C., Reverchon S., Robert-Baudouy J.;  
 RT "Nucleotide sequence of the Erwinia chrysanthemi gene encoding  
 RT 2-keto-3-deoxygluconate permease.";  
 RL Gene 83:233-241(1989).  
 CC -!- FUNCTION: The 2-keto-3-deoxygluconate permease transports the  
 CC degraded pectin products into the bacterial cell, where they serve  
 CC as carbon and energy sources. This is a hydrogen coupled transport  
 CC system.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein. Inner membrane.  
 CC -!- SIMILARITY: Belongs to the kdg transporter family.  
 CC  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC  
 CC EMBL; M31456; AAA83925.1; ALT\_INIT.  
 DR PIR; JQ0113; JQ0113.  
 DR HAMAP; MF\_00070; -. 1.  
 DR InterPro; IPR004684; KdgT.  
 DR Pfam; PF03812; KdgT; 1.  
 DR TIGRfam; TIGR00993; kdgT; 1.  
 KW Transport; Sugar transport; kdgT; 1.  
 FT TRANSMEM 10 30  
 FT TRANSMEM 42 62 POTENTIAL.  
 FT TRANSMEM 77 97 POTENTIAL.  
 FT TRANSMEM 100 120 POTENTIAL.  
 FT TRANSMEM 141 161 POTENTIAL.  
 FT TRANSMEM 163 183 POTENTIAL.  
 FT TRANSMEM 199 219 POTENTIAL.  
 FT TRANSMEM 224 244 POTENTIAL.  
 FT TRANSMEM 254 274 POTENTIAL.  
 FT TRANSMEM 289 309 POTENTIAL.  
 SQ SEQUENCE 339 AA; 35037 MW; 9AD38FFDF67F475 CRC64;  
  
 Query Match 1.7%; Score 7; DB 1; Length 339;  
 Best Local Similarity 100.0%; Pred. No. 47;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
 QY 191 FSRVQT 197  
 DB 195 FSRVQT 201  
  
 RESULT 30  
 RDS2\_XENLA  
 ID\_RDS2\_XENLA STANDARD; PRT; 345 AA.  
 AC Q42582; 1998 (Rel. 36, Created)  
 DT 15-JUL-1998 (Rel. 36, Last sequence update)  
 DT 15-JUL-1998 (Rel. 36, Last sequence update)  
 DT 15-MAR-2004 (Rel. 43, Last annotation update)  
 DE RDS/peripherin-like protein XRD336.  
 GN RDS36.  
 OS Xenopus laevis (African clawed frog).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipidae; Pipidae;  
 OC Xenopodinae; Xenopus.  
 OX NCBI\_TaxID=8355;

RN SEQUENCE FROM N.A.  
 RP MEDLINE=97081973; PubMed=8923216;  
 RA Kedzierski W., Moghrabi W.N., Allen A.C., Jablonski-Stienke M.M.,  
 RA Azarian S.M., Bok D., Travis G.H.;  
 RT "Three homologs of rds/peripherin in Xenopus laevis photoreceptors  
 RT that exhibit covalent and non-covalent interactions.";  
 RL J. Cell Sci. 109:2551-2560(1996).  
 CC -!- SUBUNIT: Homodimer; disulfide-linked.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -!- TISSUE SPECIFICITY: Rod specific.  
 CC -!- SIMILARITY: Belongs to the RDS (peripherin) / ROM1 family.  
 CC  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use by non-profit institutions as long as its content is in no way  
 CC modified and this statement is not removed. Usage by and for commercial  
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC  
 CC EMBL; L79914; AAB64232.1; -.  
 DR InterPro; IPR00830; RDS\_ROM.  
 DR InterPro; IPR00301; Transmem\_4.  
 DR Pfam; PF00335; transmembrane4; 1.  
 DR PRINTS; PR00218; PERIPHERNRDS.  
 DR PROSITE; PS00930; RDS\_ROM1; 1.  
 KW Photoreceptor; Vision; Transmembrane; Glycoprotein.  
 FT DOMAIN 1 24 CYTOPLASMIC (POTENTIAL).  
 FT TRANSMEM 25 43 POTENTIAL.  
 FT DOMAIN 44 61 LUMENAL (POTENTIAL).  
 FT TRANSMEM 62 80 POTENTIAL.  
 FT DOMAIN 81 99 CYTOPLASMIC (POTENTIAL).  
 FT TRANSMEM 100 123 POTENTIAL.  
 FT DOMAIN 124 264 LUMENAL (POTENTIAL).  
 FT TRANSMEM 265 290 POTENTIAL.  
 FT DOMAIN 291 345 CYTOPLASMIC (POTENTIAL).  
 FT CARBOHYD 54 54 N-LINKED (GLCNAC. .) (POTENTIAL).  
 FT CARBOHYD 229 229 N-LINKED (GLCNAC. .) (POTENTIAL).  
 SQ SEQUENCE 345 AA; 38726 MW; DF8F0BC2FB8DF778 CRC64;  
  
 Query Match 1.7%; Score 7; DB 1; Length 345;  
 Best Local Similarity 100.0%; Pred. No. 48;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
 QY 28 DTGFFLL 34  
 DB 302 DTGFFLL 308  
  
 RESULT 31  
 PGL1\_COLLN  
 ID\_PGL1\_COLLN STANDARD; PRT; 363 AA.  
 AC Q00446;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 10-OCT-2003 (Rel. 42, Last annotation update)  
 DE Endopolygalacturonase 1 precursor (EC 3.2.1.15) (Pectinase) (clpg1).  
 GN PGL1.  
 OS Colletotrichum lindemuthianum (Anthracnose fungus).  
 OC Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes;  
 OC Sordariomycetes; Incertae sedis; Phyllachorales; Phyllachoraceae;  
 OC mitosporic Phyllachoraceae; Colletotrichum.  
 OX NCBI\_TaxID=5458;  
 RN [1]  
 RN SEQUENCE FROM N.A.  
 RP MEDLINE=96200868; PubMed=8621072;  
 RA Centis S., Dumas B., Fournier J., Marolda M., Esquerre-Tugaye M.T.;  
 RT "Isolation and sequence analysis of Clpg1, a gene coding for an  
 RT endopolygalacturonase of the phytopathogenic fungus Colletotrichum  
 RT lindemuthianum.";  
 RL Gene 170:125-129(1996).  
 CC -!- FUNCTION: Involved in maceration and soft-rotting of plant tissue.

CC -!- CATALYTIC ACTIVITY: Random hydrolysis of 1,4-alpha-D-  
CC galactosiduronic linkages in pectate and other galacturonans.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- SIMILARITY: Belongs to family 28 of glycosyl hydrolases.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announcement/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; X89370; CAAG152.1; -  
CC PIR; JC4748; JC4748.  
CC InterPro; IPR000743; Glyco\_hydro\_28.  
CC InterPro; IPR006626; PbH1.  
CC Pfam; PF00295; Glyco\_hydro\_28; 1.  
CC SMART; SM00710; PbH1\_4  
CC PROSITE; PS00502; POLYGLACTURONASE; 1.  
CC Hydrolase; Glycosidase; Cell wall; Signal; Zymogen; Multigene family;  
CC Glycoprotein.  
CC SIGNAL 1 17 POTENTIAL.  
CC FT PROPEP 18 26 POTENTIAL.  
CC FT CHAIN 27 363 ENDOPOLYGLACTURONASE 1.  
CC FT ACT\_SITE 224 224 PROBABLE.  
CC FT CARBOXID 212 212 N-LINKED (GLCNAC...) (POTENTIAL).  
CC SQ SEQUENCE 363 AA; 36712 MW; A17A60386791B897 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 363;  
Best Local Similarity 100.0%; Pred. No. 50;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 13 FVLGALA 19  
Db 6 FVLGALA 12  
  
RESULT 32  
NU2M\_METSE STANDARD; PRT; 385 AA.  
AC O47495;  
DT 15-DEC-1998 (Rel. 37, Created)  
DT 15-DEC-1998 (Rel. 37, Last sequence update)  
DT 15-JUL-1999 (Rel. 38, Last annotation update)  
DE NADH-ubiquinone oxidoreductase chain 2 (EC 1.6.5.3).  
GN ND2.  
OS Metridium senile (Brown sea anemone) (Frilled sea anemone).  
OG Mitochondrion.  
OC Eukaryota; Metazoa; Chnidaria; Anthozoa; Zoantharia; Actiniaria;  
OC Nymphaeae; Metridiidae; Metridium.  
OX NCBI\_TaxID=6116;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=White morph.  
RA Beagley C.T., Okimoto R., Wolstenholme D.R.;  
RL Submitted (APR-1997) to the EMBL/GenBank/DBJ databases.  
CC -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein. Mitochondrial  
CC inner membrane.  
CC -!- SIMILARITY: Belongs to the complex I subunit 2 family.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announcement/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AF000023; AAC04638.1; -  
CC PIR; T11892; T11892.  
CC InterPro; IPR001750; Oxidored\_q1.  
CC

DR Pfam; PF00361; oxidored\_q1; 1.  
KW Oxidoreductase; NAD; Ubiquinone; Mitochondrion; Transmembrane.  
SQ SEQUENCE 385 AA; 40974 MW; A0A4A67F7B373134 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 385;  
Best Local Similarity 100.0%; Pred. No. 52;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 13 FVLGALA 19  
Db 66 FVLGALA 72  
  
RESULT 33  
YGI8\_AQAE STANDARD; PRT; 413 AA.  
ID YGI8\_AQAE  
AC O67545;  
DT 16-OCT-2001 (Rel. 40, Created)  
DT 16-OCT-2001 (Rel. 40, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Hypothetical protein AQ\_1618.  
GN AQ\_1618.  
OS Aquifex aeolicus.  
OC Bacteria; Aquificae; Aquificales; Aquificaceae; Aquifex.  
OX NCBI\_TaxID=63363;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=VF5;  
RX MEDLINE=98196666; PubMed=9537320;  
RA Deckert G., Warren P.V., Gaasterland T., Young W.G., Lenox A.L.,  
RA Graham D.E., Overbeek R., Shear M.A., Kellar M., Aufay M., Huber R.,  
RA Feldman R.A., Olson J.M., Olson G.J., Swanson R.V.;  
RT "The complete genome of the hyperthermophilic bacterium Aquifex  
RT aeolicus".  
RL Nature 392:353-358 (1998).  
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (Potential).  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announcement/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AE000748; AAC07516.1; -  
CC PIR; G70439; G70439.  
CC InterPro; IPR004477; ComEC\_N-term.  
CC Pfam; PF03772; Competence\_1.  
CC TIGRFAWS; TIGR00360; ComEC\_N-term; 1. Complete proteome.  
KW Hypothetical protein; Transmembrane; Complete proteome.  
FT TRANSMEM 10 32 POTENTIAL.  
FT TRANSMEM 162 184 POTENTIAL.  
FT TRANSMEM 189 211 POTENTIAL.  
FT TRANSMEM 232 254 POTENTIAL.  
FT TRANSMEM 259 276 POTENTIAL.  
FT TRANSMEM 288 310 POTENTIAL.  
FT TRANSMEM 325 347 POTENTIAL.  
SQ SEQUENCE 413 AA; 47050 MW; 526A96D93CB4EB39 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 413;  
Best Local Similarity 100.0%; Pred. No. 56;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 87 KILSNVK 93  
Db 368 KILSNVK 374  
  
RESULT 34  
GAC1\_HUMAN STANDARD; PRT; 465 AA.  
ID GAC1\_HUMAN  
AC Q8N1C3;  
CC

28-FEB-2003 (Rel. 41, Created)  
 28-FEB-2003 (Rel. 41, Last sequence update)  
 15-MAR-2004 (Rel. 43, Last annotation update)  
 Gamma-aminobutyric-acid receptor gamma-1 subunit precursor (GABA(A) receptor).  
 GABRG1.  
 Homo sapiens (Human).  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 NCBI\_TaxID=9606;  
 [1]  
 SEQUENCE FROM N.A.  
 RP TISSUE=Brain;  
 RC MEDLINE=22389257; PubMed=12477932;  
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Bustow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh P., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Ustin T.B., Toshiki S.J., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettman M., Madan A.C., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalusz D.E., Schermer A., Schein J.E., Jones S.J.M., Marra M.A.;  
 RA "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences";  
 RT Proc. Natl. Acad. Sci. U.S.A. 99:16999-16903(2002).  
 CC -!- FUNCTION: GABA, the major inhibitory neurotransmitter in the vertebrate brain, mediates neuronal inhibition by binding to the GABA/benzodiazepine receptor and opening an integral chloride channel.  
 CC -!- SUBUNIT: Generally pentameric. There are five types of GABA(A) receptor chains: alpha, beta, gamma, delta, and rho.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -!- MISCELLANEOUS: This subunit carries the benzodiazepine binding site.  
 CC -!- SIMILARITY: Belongs to the ligand-gated ionic channel family.  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; BC031087; AAH31087.1; -;  
 DR GenBank; U000000; GABRG1.  
 DR MIM; 137166; -;  
 DR InterPro; IPR005438; GABRG1\_receptor.  
 DR InterPro; IPR005437; GABRG1\_receptor.  
 DR InterPro; IPR006029; Neu\_chan\_memb.  
 DR InterPro; IPR006202; Neu\_chan\_memb.  
 DR InterPro; IPR006201; Neu\_chan\_memb.  
 DR Pfam; PF02931; Neu\_chan\_memb; 1.  
 DR Pfam; PF02932; Neu\_chan\_memb; 1.  
 DR PRINTS; PR01620; GABRG1.  
 DR PRINTS; PR00252; NR103CHANNEL.  
 DR TIGRfam; TIGR00860; LIC; 1.  
 DR PROSITE; PS00236; NEUROTR\_ION\_CHANNEL; 1.  
 KW Postsynaptic membrane, Ionic channel, Glycoprotein, Signal,  
 KM Multigene family, Transmembrane, Chloride channel.  
 FT SIGNAL 1 35 POTENTIAL.  
 FT CHAIN 36 465 GAMMA-AMINOBUTYRIC-ACID RECEPTOR GAMMA-1 SUBUNIT.  
 FT

FT DOMAIN 36 272 EXTRACELLULAR (PROBABLE).  
 FT TRANSMEM 273 294 PROBABLE.  
 FT TRANSMEM 299 320 PROBABLE.  
 FT TRANSMEM 332 354 PROBABLE.  
 FT DOMAIN 355 444 CYTOPLASMIC (PROBABLE).  
 FT TRANSMEM 445 465 PROBABLE.  
 FT CARBOHYD 50 50 N-LINKED (GLCNAC. . .) (POTENTIAL).  
 FT CARBOHYD 127 127 N-LINKED (GLCNAC. . .) (POTENTIAL).  
 FT CARBOHYD 245 245 N-LINKED (GLCNAC. . .) (POTENTIAL).  
 FT DISULFID 186 202 BY SIMILARITY.  
 SQ SEQUENCE 465 AA; 53667 MW; 6C314C955704F855 CRC64;  
 Query Match 1.7%; Score 7; DB 1; Length 465;  
 Best Local Similarity 100.0%; Pred. No. 62;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 130 LVFLLLT 136  
 DB 23 LVFLLLT 29  
 ID DLDP HALVO STANDARD; PRT; 474 AA.  
 AC Q04829;  
 DT 01-FEB-1994 (Rel. 28, Created)  
 DT 01-FEB-1994 (Rel. 28, Last sequence update)  
 DT 15-MAR-2004 (Rel. 43, Last annotation update)  
 DE Dihydrolipoamide dehydrogenase (EC 1.8.1.4).  
 GN LPD.  
 OS Halobacterium volcanii (Haloflex volcanii).  
 OC Archaea; Euryarchaeota; Halobacteria; Halobacteriales;  
 OC Halobacteriaceae; Haloflex.  
 OX NCBI\_TaxID=2246;  
 RN [1]  
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 325-347.  
 RC STRAIN=ATCC 29605;  
 RX MEDLINE=93119588; PubMed=1339281;  
 RA Vettakkorumkandav N.N., Stevenson K.J.;  
 RT "Dihydrolipoamide dehydrogenase from Haloflex volcanii: gene cloning, complete primary structure, and comparison to other dihydrolipoamide dehydrogenases";  
 RL Biochem. Cell Biol. 70:70-75(1992).  
 CC -!- CATALYTIC ACTIVITY: Dihydrolipoamide + NAD(+) = lipoamide + NADH.  
 CC -!- COFACTOR: Binds 1 FAD per subunit (By similarity).  
 CC -!- SUBUNIT: Homodimer.  
 CC -!- SUBCELLULAR LOCATION: Cytoplasmic.  
 CC -!- MISCELLANEOUS: The active site is a redox-active disulfide bond.  
 CC -!- SIMILARITY: Belongs to class-I pyridine nucleotide-disulfide oxidoreductase family.  
 CC -----  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See <http://www.isb-sib.ch/announce/> or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 DR EMBL; L09733; AAA72340.1; -;  
 DR PIR; A56824; A56824.  
 DR HSP; P11959; LPD.  
 DR InterPro; IPR001327; FAD\_pyr\_redox.  
 DR InterPro; IPR000815; Hg\_reductase.  
 DR InterPro; IPR006258; Lipoamide\_dh.  
 DR InterPro; IPR000205; NAD\_BS.

DR InterPro; IPR001100; Pyr\_redox.  
DR InterPro; IPR004099; Pyr\_redox.dim.  
DR InterPro; IPR00103; Pyridine\_redox\_2.  
DR Pfam; PF00070; pyr\_redox; 1.  
DR Pfam; PF02852; pyr\_redox.dim; 1.  
DR PRINTS; PR00368; FADPNR.  
DR PRINTS; PR00945; HGRDASEI.  
DR PRINTS; PR00411; NDRDASEI.  
DR PRINTS; PR00469; NDRDASEII.  
DR ProDom; PD000139; FAD\_pyr\_redox; 1.  
DR TIGRFAMs; TIGR01350; lipamide DH; 1.  
DR PROSITE; PS00076; PYRIDINE REDOX 1; 1.  
KW Redox-active center; Glycolysis; Oxidoreductase; NAD; Flavoprotein;  
KW FAD.  
FT INIT MET 0 0  
FT NP\_BIND 38 46 FAD (ADP PART) (BY SIMILARITY).  
FT DISULFID 46 51 REDOX-ACTIVE (BY SIMILARITY).  
FT ACT\_SITE 450 450 PROTON ACCEPTOR/DONOR (BY SIMILARITY).  
SQ SEQUENCE 474 AA; 49856 MW; DD790180B913605A CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 474;  
Best Local Similarity 100.0%; Pred. No. 63;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 11 SGFVLGA 17  
DB 410 SGFVLGA 416  
  
RESULT 36  
ID IF3Y\_YEAST STANDARD; PRT; 478 AA.  
AC P41814;  
DT 01-NOV-1995 (Rel. 32, Created)  
DT 01-NOV-1995 (Rel. 32, Last sequence update)  
DT 30-MAY-2000 (Rel. 39, Last annotation update)  
DE Eukaryotic translation initiation factor 3 62 kDa subunit (eIF3 p62)  
DE (Translation initiation factor eIF3, p62 subunit) (GCD10 protein).  
DE GCD10 OR TIF33 OR YNL062C OR N2422.  
GN Saccharomyces cerevisiae (Baker's yeast).  
OS Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;  
OC Saccharomycetales; Saccharomycetaceae; Saccharomycetes.  
OX NCBI\_TaxID=4932;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=S288c;  
RA Garcia-Barrio M.T., Cuesta R., Hinnebusch A.G., Tamame Gonzalez M.;  
RL Submitted (DEC-1994) to the EMBL/GenBank/DBJ databases.  
RN [2]  
RP SEQUENCE FROM N.A.  
RC STRAIN=S288c / FY1676;  
RX MEDLINE=96021608; PubMed=8533472;  
RA Berge P., Doignon F., Crouzet M.;  
RT "The sequence of a 44 420 bp fragment located on the left arm of  
chromosome XIV from Saccharomyces cerevisiae.";  
RL Yeast 11:967-974 (1995).  
RN [3]  
RP ERRATUM.  
RX MEDLINE=97060022; PubMed=8904343;  
RA Berge P., Doignon F., Crouzet M.;  
RY Yeast 12:297-297 (1996).  
CC -!- FUNCTION: EIF-3 DISOCIATES RIBOSOMES, PROMOTES INITIATOR MET-TRNA  
AND MRNA BINDING. NEGATIVE REGULATOR OF GCN4 TRANSLATION.  
CC -!- SUBUNIT: eIF-3 is composed of up to 8 different subunits.  
CC -!- SIMILARITY: BELONGS TO THE EIF-3 P62 FAMILY.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
between the Swiss Institute of Bioinformatics and the EMBL outstation -  
the European Bioinformatics Institute. There are no restrictions on its  
use by non-profit institutions as long as its content is in no way  
modified and this statement is not removed. Usage by and for commercial  
entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).

CC EMBL; X83511; CAA58501.1; -  
DR EMBL; U2141; AAA9649.1; -  
DR EMBL; Z71338; AAA95935.1; -  
DR PIR; S51669; S51669.  
DR GerMOnline; 143068; -  
DR SGD; S0005006; GCD10.  
DR GO; GO:0005634; C:nucleus; IDA.  
DR GO; GO:0008175; P:RNA methyltransferase activity; IDA.  
DR GO; GO:0030488; P:RNA methylation; IDA.  
DR InterPro; IPR007316; EIF3\_gamma.  
DR Pfam; PF04189; eif3\_gamma; 1.  
KW Initiation factor; Protein biosynthesis.  
SQ SEQUENCE 478 AA; 54389 MW; 99790A1AAACE88609 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 478;  
Best Local Similarity 100.0%; Pred. No. 63;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 392 EEIEKMK 398  
DB 142 EEIEKMK 148  
  
RESULT 37  
ID MURC\_VIBCH STANDARD; PRT; 486 AA.  
AC Q9KPG8;  
DT 28-FEB-2003 (Rel. 41, Created)  
DT 28-FEB-2003 (Rel. 41, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE UDP-N-acetylmuramate--L-alanine ligase (EC 6.3.2.8) (UDP-N-  
acetylmuramoyl-L-alanine synthetase).  
DE MURC OR VC2400.  
GN Vibrio cholerae.  
OS Bacteria; Proteobacteria; Gammaproteobacteria; Vibrionales;  
OC Vibrionaceae; Vibrio.  
OX NCBI\_TaxID=666;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=El Tor N16961 / Serotype O1;  
RX MEDLINE=20406833; PubMed=10952301;  
RA Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,  
Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Umayam L.A.,  
Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,  
Ermlaeva M.D., Vamathevan J., Bass S., Olin H., Dragoi I., Sellers P.,  
McDonald L., Ueberback T., Fleischmann R.D., Nierman W.C., White O.,  
Salzberg S.L., Smith R.O., Colwell R.R., Mekalanos J.J., Venter J.C.,  
Fraser C.M.;  
RT "DNA sequence of both chromosomes of the cholera pathogen Vibrio  
cholerae.";  
RL Nature 406:477-483 (2000).  
CC -!- FUNCTION: Cell wall formation.  
CC -!- CATALYTIC ACTIVITY: ATP + UDP-N-acetylmuramoyl + L-alanine +  
phosphate + UDP-N-acetylmuramoyl-L-alanine.  
CC -!- PATHWAY: Peptidoglycan biosynthesis.  
CC -!- SUBCELLULAR LOCATION: Cytoplasmic (Probable).  
CC -!- SIMILARITY: Belongs to the murCDEF family.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
between the Swiss Institute of Bioinformatics and the EMBL outstation -  
the European Bioinformatics Institute. There are no restrictions on its  
use by non-profit institutions as long as its content is in no way  
modified and this statement is not removed. Usage by and for commercial  
entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).

CC EMBL; AE004310; AAF95543.1; ALT\_INIT.  
DR TIGR; VC2400; -  
DR HAVAP; MF 00046; -; 1.  
DR InterPro; IPR000713; Mur\_ligase.  
DR InterPro; IPR004101; Mur\_Ligase\_C.  
DR InterPro; IPR005758; MurC.

DR Pfam: PF01225; Mur ligase; 1.  
DR Pfam: PF02875; Mur\_ligase C; 1.  
DR TIGRfams: TIGR01082; murC; 1.  
KW Ligase; ATP-binding; Cell division; Cell wall;  
KW Peptidoglycan synthesis; Complete proteome.  
FT NP\_BIND 129 135 ATP (POTENTIAL).  
SQ SEQUENCE 486 AA; 53041 MW; A7AD892DF74ADBE4 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 486;  
Best Local Similarity 100.0%; Pred. No. 64;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 262 IQAREK 268  
DB 98 IQAREK 104  
  
RESULT 38  
GCSB\_STAAM STANDARD; PRT; 490 AA.  
ID GCSB\_STAAM  
AC Q99TV9;  
DT 10-OCT-2003 (Rel. 42, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE Probable glycine dehydrogenase [decarboxylating] subunit 2  
DE (EC 1.4.4.2) (Glycine decarboxylase subunit 2) (Glycine cleavage  
system P-protein subunit 2).  
GN GCVPB OR SAV1535 OR SAI365.  
OS Staphylococcus aureus (strain Mu50 / ATCC 700699), and  
OC Bacteria; Firmicutes; Bacillales; Staphylococcus.  
OX NCBI\_TaxID=158878; 158879;  
RN [1]  
SEQUENCE FROM N.A.  
RP STRAIN=Mu50 / ATCC 700699, and N315;  
RX MEDLINE=21311952; PubMed=11418146;  
RA Kuroda M., Ohta T., Uchiyama I., Baba T., Yuzawa H., Kobayashi I.,  
Cui L., Oguchi A., Aoki K.-I., Nagai Y., Lian J.-Q., Ito T.,  
Kanamori M., Matsumaru H., Maruyama A., Murakami H., Hosoyama A.,  
Mizutani-Ui Y., Takahashi N.K., Sawano T., Inoue R.-J., Kaijo C.,  
Sekimizu K., Hirakawa H., Kishida S., Goto S., Fabuzaki J.,  
Kanehisa M., Yamashita A., Oshima K., Furuya K., Yoshino C., Shiba T.,  
Hattori M., Ogasawara N., Hayaishi H., Hiramatsu K.,  
RT "Whole genome sequencing of methicillin-resistant Staphylococcus  
aureus".  
RL Lancet 357:1225-1240(2001).  
CC -!- FUNCTION: The glycine cleavage system catalyzes the degradation of  
glycine. The P protein binds the alpha-amino group of glycine  
through its pyridoxal phosphate cofactor; CO(2) is released and  
the remaining methylene moiety is then transferred to the  
lipamide cofactor of the H protein (By similarity).  
CC -!- CATALYTIC ACTIVITY: Glycine + lipoylprotein = S-  
animomethylidihydropyridoxal + CO(2).  
CC -!- COFACTOR: Pyridoxal phosphate (By similarity).  
CC -!- SUBUNIT: The glycine cleavage system is composed of four proteins:  
P, T, L and H. In this organism, the P 'protein' is an heterodimer  
of two subunits (By similarity).  
CC -!- SIMILARITY: Belongs to the gcvp family. C-terminal subunit  
subfamily.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
between the Swiss Institute of Bioinformatics and the EMBL outstation -  
the European Bioinformatics Institute. There are no restrictions on its  
use by non-profit institutions as long as its content is in no way  
modified and this statement is not removed. Usage by and for commercial  
entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AP003362; BAB57697.1; -;  
DR EMBL; AP003362; BAB57697.1; -;  
DR EMBL; AP003364; BAB42627.1; -;  
DR PIR; F89933; F89933.  
DR SWISS-2DPAGE; Q99TV9; STAA.  
DR HAMAP; MF\_00713; -; 1.  
DR

DR InterPro: IPR003437; GDC-P.  
DR Pfam: PF02347; GDC-P; 1.  
KW Oxidoreductase; Pyridoxal phosphate; Complete proteome.  
FT BINDING 273 273 PYRIDOXAL PHOSPHATE (BY SIMILARITY).  
SQ SEQUENCE 490 AA; 54783 MW; 6EC8CCBA16D35CBF CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 490;  
Best Local Similarity 100.0%; Pred. No. 65;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 221 SLQEELK 227  
DB 119 SLQEELK 125  
  
RESULT 39  
GCSB\_STAAM STANDARD; PRT; 490 AA.  
ID GCSB\_STAAM  
AC QANW0;  
DT 10-OCT-2003 (Rel. 42, Created)  
DT 10-OCT-2003 (Rel. 42, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE Probable glycine dehydrogenase [decarboxylating] subunit 2  
DE (EC 1.4.4.2) (Glycine decarboxylase subunit 2) (Glycine cleavage  
system P-protein subunit 2).  
GN GCVPB OR MW1487.  
OS Staphylococcus aureus (strain MW2).  
OC Bacteria; Firmicutes; Bacillales; Staphylococcus.  
OX NCBI\_TaxID=196620;  
RN [1]  
SEQUENCE FROM N.A.  
RP MEDLINE=22040717; PubMed=12044378;  
RX Baba T., Takeuchi F., Kuroda M., Yuzawa H., Aoki K.-I., Oguchi A.,  
Nagai Y., Iwama N., Asano K., Naimi T., Kuroda H., Cui L.,  
Yanamoto K., Hiramatsu K.,  
RT "Genome and virulence determinants of high virulence community-  
acquired MRSA".  
RL Lancet 359:1819-1827(2002).  
CC -!- FUNCTION: The glycine cleavage system catalyzes the degradation of  
glycine. The P protein binds the alpha-amino group of glycine  
through its pyridoxal phosphate cofactor; CO(2) is released and  
the remaining methylene moiety is then transferred to the  
lipamide cofactor of the H protein (By similarity).  
CC -!- CATALYTIC ACTIVITY: Glycine + lipoylprotein = S-  
animomethylidihydropyridoxal + CO(2).  
CC -!- COFACTOR: Pyridoxal phosphate (By similarity).  
CC -!- SUBUNIT: The glycine cleavage system is composed of four proteins:  
P, T, L and H. In this organism, the P 'protein' is an heterodimer  
of two subunits (By similarity).  
CC -!- SIMILARITY: Belongs to the gcvp family. C-terminal subunit  
subfamily.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
between the Swiss Institute of Bioinformatics and the EMBL outstation -  
the European Bioinformatics Institute. There are no restrictions on its  
use by non-profit institutions as long as its content is in no way  
modified and this statement is not removed. Usage by and for commercial  
entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AP004827; BAB95352.1; -;  
DR HAMAP; MF\_00713; -; 1.  
DR InterPro: IPR003437; GDC-P.  
DR Pfam: PF02347; GDC-P; 1.  
KW Oxidoreductase; Pyridoxal phosphate; Complete proteome.  
FT BINDING 273 273 PYRIDOXAL PHOSPHATE (BY SIMILARITY).  
SQ SEQUENCE 490 AA; 54782 MW; 6EC8CCBA16D35CB1 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 490;  
Best Local Similarity 100.0%; Pred. No. 65;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 221 SLQEELK 227

```
Db 119 SLOELK 125
|||||
ID TY3H PHASP STANDARD; PRT; 491 AA.
AC P11982;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-OCT-1989 (Rel. 12, Last sequence update)
DE Tyrosine 3-monooxygenase (SC 1.14.16.2) (Tyrosine 3-hydroxylase) (TH).
GN TH.
OS Phasianidae sp. (Quail).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae.
OX NCBI_TaxID=9006;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Adrenal gland;
RX MEDLINE=88089590; PubMed=2447231;
RA Faucet M., Grima B., Lamouroux A., Mallet J.,
RT "Cloning of quail tyrosine hydroxylase; amino acid homology with
RT other hydroxylases discloses functional domains.";
RL J. Neurochem. 50:142-148(1988).
CC -!- FUNCTION: Plays an important role in the physiology of adrenergic
CC neurons.
CC -!- CATALYTIC ACTIVITY: L-tyrosine + tetrahydropteridine + O(2) = 3,4-
CC dihydroxy-L-phenylalanine + dihydropteridine + H(2)O.
CC -!- COFACTOR: Ferrous ion.
CC -!- ENZYME REGULATION: Phosphorylation leads to an increase in the
CC catalytic activity.
CC -!- PATHWAY: Catecholamine biosynthesis; first step.
CC -!- SIMILARITY: Belongs to the bipterin-dependent aromatic amino acid
CC hydroxylase family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; M24778; AAA49514.1; -.
CC PIR; A28582; A28582.
CC HSP; P04177; 1T0H.
CC
CC InterPro; IPR001273; Aaa hydroxylase.
CC InterPro; IPR005962; Tyr 3 monoox.
CC Pfam; PF00351; bipterin_H_1.
CC PRINTS; PR00372; FYWYDXLASE.
CC ProDom; PD002559; Aaa_hydroxylase; 1.
CC TIGRFAMs; TIGR01269; Tyr_3_monoox; 1.
CC PROSITE; PS00367; BIPTERIN_HYDROXYL; 1.
CC Catecholamine biosynthesis; Oxidoreductase; Monooxygenase; Iron;
CC Neurotransmitter biosynthesis; Phosphorylation.
CC MOD_RES 40 40 PHOSPHORYLATION (BY PKA) (BY SIMILARITY).
CC FT DOMAIN 51 55 POLY-ALA.
CC FT METAL 324 324 IRON (BY SIMILARITY).
CC FT METAL 329 329 IRON (BY SIMILARITY).
CC FT METAL 369 369 IRON (BY SIMILARITY).
CC SEQUENCE 491 AA; 56066 MW; AFB363220F70C0A0 CRC64;
CC
CC Query Match 1.7%; Score 7; DB 1; Length 491;
CC Best Local Similarity 100.0%; Pred. No. 65;
CC Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
CC
CC QY 390 TDEIEK 396
CC |||||
CC Db 353 TDEIEK 359
CC
CC RESULT 41
```

```
YSMS CAEL STANDARD; PRT; 498 AA.
ID YSMS CAEL STANDARD; PRT; 498 AA.
AC Q10125;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DE Hypothetical protein F52C9.5 in chromosome III.
GN F52C9.5.
OS Caenorhabditis elegans.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditidae;
OC Rhabditidae; Peloderinae; Caenorhabditis.
OX NCBI_TaxID=6239;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Bristol N2;
RA Pavello A.;
RL Submitted (NOV-1995) to the EMBL/GenBank/DBJ databases.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; U39850; AAA81055.1; -.
CC PIR; T16417; T16417.
CC WormPep; F52C9.5; CE01963.
CC InterPro; IPR003014; PAN.
CC InterPro; IPR003609; Pan_app.
CC Pfam; PF00024; PAN; 2.
CC SMART; SM00473; PAN_AP; 2.
CC SIMILARITY: Belongs to the bipterin-dependent aromatic amino acid
CC hydroxylase family.
CC
CC Query Match 1.7%; Score 7; DB 1; Length 498;
CC Best Local Similarity 100.0%; Pred. No. 65;
CC Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
CC
CC QY 357 FKSRLL 363
CC |||||
CC Db 491 FKSRLL 497
CC
CC RESULT 42
```

```
GCSE STAP STANDARD; PRT; 502 AA.
ID GCSE STAP STANDARD; PRT; 502 AA.
AC Q8CMM1;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DE Probable glycine dehydrogenase [decarboxylating] subunit 2
DE (SC 1.4.4.2) (Glycine decarboxylase subunit 2) (Glycine cleavage
DE system P-protein subunit 2).
GN GCVPB OR SE1220.
OS Staphylococcus epidermidis.
OC Bacteria; Firmicutes; Bacillales; Staphylococcus.
OX NCBI_TaxID=1282;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=ATCC 12228;
RX PubMed=12950922;
RA Zhang Y.-Q., Ren S.-X., Li H.-L., Wang Y.-X., Fu G., Yang J.,
RA Qin Z.-Q., Mao Y.-G., Wang W.-Y., Chen R.-S., Shen Y., Chen Z.,
RA Yuan Z.-H., Zhao G.-P., Qu D., Danchin A., Wen Y.-M.;
RT "Genome-based analysis of virulence genes in a non-biofilm-forming
RT Staphylococcus epidermidis strain (ATCC 12228).";
RL Mol. Microbiol. 49:1577-1593(2003).
CC -!- FUNCTION: The glycine cleavage system catalyzes the degradation of
CC glycine. The P protein binds the alpha-amino group of glycine
CC through its pyridoxal phosphate cofactor; CO(2) is released and
CC the remaining methanamine moiety is then transferred to the
```

CC lipoamide cofactor of the H protein (By similarity).  
CC -!- CATALYTIC ACTIVITY: Glycine + lipoylprotein = S-  
CC aminomethylidihydrolipoylprotein + CO(2).  
CC -!- COFACTOR: Pyridoxal phosphate (By similarity).  
CC -!- SUBUNIT: The glycine cleavage system is composed of four proteins:  
CC P, T, L and H. In this organism, the P 'protein' is an heterodimer  
CC of two subunits (By similarity).  
CC -!- SIMILARITY: Belongs to the gcvp family. C-terminal subunit  
CC subfamily.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AB016748; AA004819.1; -  
CC HAMAP; MF\_00713; -; 1.  
CC InterPro; IPR003437; GDC-P.  
CC Pfam; PF02347; GDC-P; 1.  
KW Oxidoreductase; Pyridoxal phosphate; Complete proteome.  
FT BINDING 273 273 48662D78926187A1 CRC64;  
SQ SEQUENCE 502 AA; 56402 MW; 48662D78926187A1 CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 502;  
Best Local Similarity 100.0%; Pred. No. 66;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 221 SLOELK 227  
D 119 SLOELK 125  
|||||  
|||  
  
RESULT 43  
VRK2 HUMAN  
ID VRK2 HUMAN STANDARD; PRT; 508 AA.  
AC Q86Y07; Q86Y08; Q86Y09; Q86Y10; Q86Y11; Q86Y12; Q81X15; Q99987;  
DT 10-OCT-2003 (Rel. 42, Created)  
DT 10-OCT-2003 (Rel. 42, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE Serine/threonine protein kinase VRK2 (EC 2.7.1.37) (Vaccinia-related  
DE kinase 2).  
GN VRK2.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
[1]  
RN SEQUENCE FROM N.A. (ISOFORM 1), AND TISSUE SPECIFICITY.  
RP TISSUE=Liver;  
RC MEDLINE=98008921; PubMed=9344656;  
RA Nezu J.-I., Oku A., Jones M.H., Shimane M.;  
RT "Identification of two novel human putative serine/threonine kinases,  
RT VRK1 and VRK2, with structural similarity to Vaccinia virus B1R  
RT kinase.";  
RL Genomics 45:327-331(1997).  
[2]  
RN SEQUENCE FROM N.A. (ISOFORM 2).  
RA Blanco S., Klimakova L., Santos C., Sevilla A., Lazo P.A.;  
RT "Expression of a variant isoform of the human vaccinia-related kinase  
RT 2 (VRK2B) and its effects on p53 dependent transcription.";  
RL Submitted (NOV-2002) to the EMBL/GenBank/DBJ databases.  
[3]  
RN SEQUENCE FROM N.A. (ISOFORMS 1; 3; 4 AND 5), AND VARIANT ILE-167.  
RA Suriyapparuma S.P., Sarfarazi M.;  
RT "Identification of 6 different isoforms for Vaccinia-related kinase 2  
RT (VRK2) gene.";  
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.  
[4]  
RN SEQUENCE FROM N.A. (ISOFORM 1).  
RP SEQUENCE=Pancreas;

RX MEDLINE=22388257; PubMed=12477932;  
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.J., Wang J., Heide F.,  
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,  
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahey J., Helton E., Kettner M., Madan A.C., Rodriguez S., Sanchez A.,  
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,  
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;  
RT "Generation and initial analysis of more than 15,000 full-length human  
RT and mouse cDNA sequences.";  
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).  
CC -!- FUNCTION: Probable serine/threonine kinase (By similarity).  
CC -!- CATALYTIC ACTIVITY: ATP + a protein = ADP + a phosphoprotein.  
CC -!- SUBCELLULAR LOCATION: Type IV membrane protein (Potential).  
CC -!- ALTERNATIVE PRODUCTS:  
CC Event=Alternative splicing; Named isoforms=5;  
CC Name=1;  
CC IsoId=Q86Y07-1; Sequence=Displayed;  
CC Name=2;  
CC IsoId=Q86Y07-2; Sequence=VSP\_008537, VSP\_008538;  
CC Note=No experimental confirmation available;  
CC Name=3;  
CC IsoId=Q86Y07-3; Sequence=VSP\_008533;  
CC Note=No experimental confirmation available;  
CC Name=4; Synonyms=5;  
CC IsoId=Q86Y07-4; Sequence=VSP\_008534;  
CC Note=No experimental confirmation available;  
CC Name=5; Synonyms=6;  
CC IsoId=Q86Y07-5; Sequence=VSP\_008535, VSP\_008536;  
CC Note=No experimental confirmation available;  
CC -!- TISSUE SPECIFICITY: Widely expressed. Highly expressed in fetal  
CC liver, skeletal muscle, pancreas, heart, peripheral blood  
CC leukocytes and testis.  
CC -!- SIMILARITY: Belongs to the Ser/Thr family of protein kinases. VRK  
CC subfamily.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AB000450; BAA19109.1; -  
CC EMBL; AJ512204; CAD54446.2; -  
CC EMBL; AY228367; AAO73047.1; -  
CC EMBL; AY228368; AAO73048.1; -  
CC EMBL; AY228369; AAO73049.1; -  
CC EMBL; AY228370; AAO73050.1; -  
CC EMBL; AY228371; AAO73051.1; -  
CC EMBL; AY228372; AAO73052.1; -  
CC EMBL; BC027854; AAH27854.1; -  
CC HSP; Q06486; LCKT.  
CC Genes; XGNC:12719; VRK2.  
CC MIM; 602169; -  
CC InterPro; IPR000719; Prot kinase.  
CC InterPro; IPR008271; Ser\_thr\_pkin AS.  
CC InterPro; IPR002290; Ser\_thr\_pkinase.  
CC Pfam; PF00069; pkinase; 1.  
CC ProDom; PD000001; Prot kinase; 1.  
CC SMART; SM00220; S\_TKc\_1.  
CC PROSITE; PS00107; PROTEIN\_KINASE\_ATP; FALSE\_NEG.



DR PROSITE; PS00108; PROTEIN KINASE ST; 1.  
 DR PROSITE; PS50011; PROTEIN KINASE DOM; 1.  
 KW Transferase; Serine/threonine-protein kinase; ATP-binding;  
 FT Transmembrane; Alternative splicing; Polymorphism.  
 FT TRANSMEM 487 507 ANCHOR FOR TYPE IV MEMBRANE PROTEIN  
 (POTENTIAL).  
 FT DOMAIN 29 319  
 FT NP\_BIND 35 61  
 FT ACT\_SITE 166 166  
 FT VARSPPLIC 1 23  
 FT VARSPPLIC 1 118  
 FT VARSPPLIC 395 396  
 FT VARSPPLIC 397 508  
 FT VARSPPLIC 395 400  
 FT VARSPPLIC 401 508  
 FT VARIANT 167 167  
 FT CONFLICT 419 419  
 FT SEQUENCE 508 AA; 58126 MW; 157BFB8F48511AF4 CRC64;  
 SQ  
 Query Match 1.78; Score 7; DB 1; Length 508;  
 Best Local Similarity 100.0%; Pred. No. 67;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 83 QALKKIL 89  
 DB 307 QALKKIL 313  
 RESULT 44  
 PNK1\_MOUSE  
 ID PNK1\_MOUSE STANDARD; PRT; 548 AA.  
 AC Q8K4K6; Q8D3K1; Q9QXK8;  
 DT 28-FEB-2003 (Rel. 41, Created)  
 DT 28-FEB-2003 (Rel. 41, Last sequence update)  
 DT 10-OCT-2003 (Rel. 42, Last annotation update)  
 DE Pantothenate kinase 1 (EC 2.7.1.33) (pantothenic acid kinase 1)  
 DE (mPank1) (mPank).  
 GN PANK1 OR PANK.  
 OS Mus musculus (Mouse).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
 OX NCBI\_TaxID=10090;  
 RN [1]  
 RP SEQUENCE FROM N.A. (ISOFORM 2), AND CHARACTERIZATION.  
 RX MEDLINE=20092916; PubMed=10625688;  
 RA Rock C.O., Calder R.B., Karim M.A., Jackowski S.;  
 RT "Pantothenate kinase regulation of the intracellular concentration of  
 coenzyme A."; J. Biol. Chem. 275:1377-1383 (2000).  
 RL [2]  
 RP SEQUENCE FROM N.A. (ISOFORM 1), CHARACTERIZATION, AND ALTERNATIVE  
 RP SPLICING.  
 RX MEDLINE=22090536; PubMed=12095677;  
 RA Rock C.O., Karim M.A., Zhang Y.M., Jackowski S.;  
 RT "The murine pantothenate kinase (Pank1) gene encodes two  
 differentially regulated pantothenate kinase isoforms.";  
 RT Gene 291:35-43 (2002).  
 RL [3]  
 RP SEQUENCE FROM N.A. (ISOFORM 1).  
 RC STRAIN=C57BL/6J; TISSUE=Head;  
 RX MEDLINE=21085660; PubMed=11217851;  
 RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,  
 RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,  
 RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamataka I.,  
 RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,  
 RA Fleischmann W., Gaasterland T., Glessi C., King B., Kochiwa H.,  
 RA Kuehl P., Lewis S., Matsuo Y., Nikaudo I., Pesole G., Quackenbush J.,  
 RA Saito K., Stabli F., Suzuki R., Tomita M., Wagner L., Washio T.,  
 RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldi M.F.,  
 RA Brownstein M.J., Bull C., Fletcher C., Fujita M., Gariboldi M.,  
 RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,  
 RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,  
 RA Nordsieck P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,  
 RA Saeki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,  
 RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whitaker C., Wilming L.,  
 RA Wyszynski-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,  
 RA Hayashizaki Y.;  
 FT "Functional annotation of a full-length mouse cDNA collection.";  
 RL Nature 409:685-690 (2001).  
 RN [4]  
 RP SEQUENCE FROM N.A. (ISOFORM 2).  
 TC TISSUE=Liver, and Skeletal muscle;  
 RX MEDLINE=22388257; PubMed=12477932;  
 RA Krausner R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
 RA Krausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,  
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
 RA Brownstein M.J., Ustin T.B., Toshiyuki S., Carninci P., Prange C.,  
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,  
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
 RA Villalon D.K., Muny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
 RA Fahy J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,  
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
 RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.B.,  
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;  
 RT "Generation and initial analysis of more than 15,000 full-length  
 human and mouse cDNA sequences.";  
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).  
 CC -1- FUNCTION: Plays a role in the physiological regulation of the  
 intracellular CoA concentration.  
 CC -1- CATALYTIC ACTIVITY: ATP + pantothenate = ADP + D'-5-  
 phosphopantothenate.  
 CC -1- ENZYME REGULATION: Regulated by feedback inhibition by CoA and its  
 thioesters. Strongly inhibited by acetyl-CoA and by many CoA and  
 also inhibited by high concentration of non-esterified CoA  
 (CoASH). Isoform 1 is inhibited by high concentration of non-  
 esterified CoA (CoASH) and strongly inhibited by acetyl-CoA and by  
 malonyl-CoA. Isoform 2 is stimulated by CoA and weakly inhibited  
 by acetyl-CoA and malonyl-CoA.  
 CC -1- PATHWAY: Coenzyme A (CoA) biosynthesis; first step.  
 CC -1- ALTERNATIVE PRODUCTS:  
 CC Event=Alternative splicing; Named isoforms=2;  
 CC Name=1; Synonyms=Pank1-alpha;  
 CC IsoId=Q8K4K6-1; Sequence=Displayed;  
 CC Name=2; Synonyms=Pank1-beta;  
 CC IsoId=Q8K4K6-2; Sequence=VSP 004522;  
 CC -1- TISSUE SPECIFICITY: Expressed in liver and kidney. Isoform 1 is  
 highly expressed in heart and skeletal muscle, whereas isoform 2  
 is expressed exclusively in testis.  
 CC -1- DOMAIN: The N-terminal extension, present in isoform 1 may be the  
 regulatory domain.  
 CC -1- SIMILARITY: Belongs to the eukaryotic pantothenate kinase family.  
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
 between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 the European Bioinformatics Institute. There are no restrictions on its  
 use by non-profit institutions as long as its content is in no way  
 modified and this statement is not removed. Usage by and for commercial  
 entities requires a license agreement. See <http://www.ebi.ac.uk/announcements/>  
 CC or send an email to [license@ebi.ac.uk](mailto:license@ebi.ac.uk).



RESULT 46

```

DNAX LACSN
ID DNAX LACSN STANDARD; PRT; 614 AA.
AC O8KMF6;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DE 10-OCT-2003 (Rel. 42, Last annotation update)
DE Chapterone protein dnaK (Heat shock protein 70) (Heat shock 70 kDa protein) (HSP70).
GN DNAX.
OS Lactobacillus sanfranciscensis (Lactobacillus sanfrancisco).
OC Bacteria; Firmicutes; Lactobacillales; Lactobacillaceae;
OC Lactobacillus.
ON NCBI_TaxID=1625;
RX [1]
RP SEQUENCE FROM N.A.
RC STRAIN=DSM 20451;
RA Ehrmann M.A.;
RT Identification and characterization of the dnaK operon of Lactobacillus sanfranciscensis.;
RT Submitted (JUN-2001) to the EMBL/GenBank/DBJ databases.
RL FUNCTION: Acts as a chaperone (By similarity).
CC -!- FUNCTION: Acts as a chaperone (By similarity).
CC -!- INDUCTION: By stress conditions e.g. heat shock (By similarity).
CC -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).
CC
CC -----
CC EMBL; AJ315382; CAC86402.1; -.
CC HAMAP; MF_00332; -.
CC InterPro; IPR001023; HSP70.
CC Pfam; PF00012; HSP70; 1.
CC PRINTS; PR00301; HEATSHOCK70.
CC ProDom; PD000089; Hsp70; 1.
CC PROSITE; PS00297; HSP70_1; 1.
CC PROSITE; PS00329; HSP70_2; 1.
CC PROSITE; PS01036; HSP70_3; 1.
CC Chaperone; ATP-binding; Heat shock; Phosphorylation.
KW MOD_RES 176 176 PHOSPHORYLATION (AUTO-) (BY SIMILARITY).
FT SEQUENCE 614 AA; 66299 MW; DDDDF2AA8875E711 CRC64;
SQ
Query Match 1.7%; Score 7; DB 1; Length 614;
Best Local Similarity 100.0%; Pred. No. 78;
Matches 7; Conservative 0; Mismatches 0; Gaps 0;
OY 391 DEIEKM 397
Db 482 DEIEKM 488
RESULT 47
ASNB BACSU
ID ASNB BACSU STANDARD; PRT; 632 AA.
AC P54420; O34902;
DT 01-OCT-1996 (Rel. 34, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Asparagine synthetase [glutamine-hydrolyzing] 1 (EC 6.3.5.4).
DE ASNB OR ASN OR BSU30540.
OS Bacillus subtilis.
OC Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
OX NCBI_TaxID=1423;
RN [1]
RP SEQUENCE FROM N.A.
RC Lapidus A., Galleron N., Sorokin A., Ehrlich S.D.;
RL Submitted (JUN-1997) to the EMBL/GenBank/DBJ databases.
RX [2]
RP SEQUENCE FROM N.A.
RC STRAIN=168;

```

RX MEDLINE=98044033; PubMed=9384377;  
 RA Kunst F., Ogasawara N., Moszer I., Albertini A.M., Alloni G.,  
 Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,  
 Borriess R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,  
 Brouillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,  
 Choi S.K., Codani J.J., Connerth I.F., Cummings N.J., Daniel R.A.,  
 Denicot P., Devine K.M., Dusterhoft A., Ehrlich S.D., Emmerson P.T.,  
 Etatic K.D., Errington J., Fabret C., Ferrari E., Foulger D.,  
 Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N.,  
 Gim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,  
 Guisepi G., Guy B.J., Hega K., Hatesch J., Harwood C.R., Henaut A.,  
 Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L.,  
 Joris B., Karamata D., Kasahara Y., Klaerr-Blanchard M., Klein C.,  
 Kobayashi Y., Koetter P., Koningsstein G., Krogh S., Kumano M.,  
 Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,  
 Lee S.M., Levine A., Liu H., Masuda S., Mauel C., Medigue C.,  
 Medina N., Mellado R.P., Mizuno M., Moestl D., Nakai S., Noback M.,  
 Noone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,  
 Parro V., Pohl T.M., Portetelle D., Porwollik S., Prescott A.M.,  
 Prescan E., Pujic P., Purnelle B., Rapoport G., Rey M., Reynolds S.,  
 Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadaie Y.,  
 Sato T., Scanlan E., Schleich S., Schroeter R., Scoffone F.,  
 Sekiguchi J., Sekowska A., Seror S.J., Serraz P., Shin B.S., Soldo B.,  
 Sorokin A., Tacconi E., Takagi T., Takahashi H., Takemaru K.,  
 Takeda M., Tamakoshi A., Tanaka T., Terpstra P., Tognoni A.,  
 Toseato V., Uchiyama S., Vandenbol M., Vannier F., Vassarotti A.,  
 Viari A., Wambutt R., Wedler E., Wedler H., Weitznegger T.,  
 Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto K., Yata K.,  
 Yoshida K., Yoshikawa H.F., Zumbstein E., Yoshikawa H., Danchin A.;  
 RT "the complete genome sequence of the Gram-positive bacterium Bacillus subtilis";  
 RL Nature 390:249-256 (1997).  
 RN [3]  
 RP SEQUENCE OF 1-81 FROM N.A.  
 RC STRAIN=168 / PY79;  
 RX MEDLINE=96345628; PubMed=8755891;  
 RA Yocum R., Perkins J.B., Howitt C.L., Pero J.;  
 RT "Cloning and characterization of the metE gene encoding S-adenosylmethionine synthetase from Bacillus subtilis";  
 RL J. Bacteriol. 178:4604-4610 (1996).  
 RN [4]  
 RP CHARACTERIZATION.  
 RX MEDLINE=99429856; PubMed=10498721;  
 RA Yoshida K.-I., Fujita Y., Ehrlich S.D.;  
 RT "Three asparagine synthetase genes of Bacillus subtilis";  
 RL J. Bacteriol. 181:6081-6091 (1999).  
 CC -!- FUNCTION: MAIN ASPARAGINE SYNTHETASE IN VEGETATIVE CELLS.  
 CC -!- CATALYTIC ACTIVITY: ATP + L-aspartate + L-glutamine = AMP + diphosphate + L-asparagine + L-glutamate.  
 CC -!- PATHWAY: Asparagine biosynthesis.  
 CC -!- SIMILARITY: Contains 1 type-2 glutamine amidotransferase domain.  
 CC -!- SIMILARITY: Belongs to the asparagine synthetase family.  
 CC

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).  
 -----  
 CC EMBL; AF008220; AAC00243.1; -.  
 CC EMBL; Z99119; CAB15032.1; -.  
 CC EMBL; U52812; AAB17067.1; -.  
 CC PIR; H69590; H69590.  
 CC HSPSP; P22106; ICT9.  
 CC Subtilisin; SGI1831; asnB.  
 CC InterPro; IPR006426; Asn\_synth\_AEB.  
 CC InterPro; IPR001962; Asn\_synthase.  
 CC InterPro; IPR000583; GATase\_2.  
 CC Pfam; PF00733; Asn\_synthase; 1.  
 CC Pfam; PF00310; GATase\_2; 1.  
 CC TIGRfams; TIGR01536; asn\_synth\_AEB; 1.

```
KW Ligase; Asparagine biosynthesis; Glutamine amidotransferase;
KW Complete proteome.
FT ACT SITE 2 GATASE (BY SIMILARITY).
FT CONFLICT 79 E1Y -> VNL (IN REF. 2).
SQ SEQUENCE 632 AA; 72666 MW; 155F11E698901EA CRC64;

Query Match 1.7%; Score 7; DB 1; Length 632;
Best Local Similarity 100.0%; Pred. No. 80;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 24 NTDSDE 30
Db |||||
98 NTDSDE 104

RESULT 48
ID DNAK_BACTN STANDARD; PRT; 638 AA.
AC Q89YW6;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Chapterone protein dnaK (Heat shock protein 70) (Heat shock 70 kDa
DE protein) (HSP70).
DE DNAK OR B74615.
GN Bacteroides thetaiotaomicron.
OS Bacteroides thetaiotaomicron.
OC Bacteria; Bacteroidetes; Bacteroides (Class); Bacteroidales;
OC Bacteroidaceae; Bacteroides.
OX NCBI_TaxID=819;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=VPI-5482 / ATCC 29148;
RX MEDLINE=22550858; PubMed=12663928;
RA Xu J., Bjursell M.K., Hmrd J., Deng S., Carmichael L.K.,
RA Chiang H.C., Hooper L.V., Gordon J.I.;
RT "A genomic view of the human-Bacteroides thetaiotaomicron symbiosis.";
RL Science 299:2074-2076(2003).
CC -!- FUNCTION: Acts as a chaperone (By similarity).
CC -!- INDUCTION: By stress conditions e.g. heat shock (By similarity).
CC -!- SIMILARITY: Belongs to the heat shock protein 70 family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AE016945; AA079720.1; --
CC HAMAP; MF_00332; 1.
CC InterPro; IPR001023; Hsp70.
CC Pfam; PF00012; HSP70; 1.
CC PRINTS; PR00301; HEATSHOCK70.
CC ProDom; PD000089; HSP70; 1.
CC PROSITE; PS00297; HSP70_1; 1.
CC PROSITE; PS00329; HSP70_2; 1.
CC PROSITE; PS01036; HSP70_3; 1.
KW Chapterone; ATP-binding; Heat shock; Phosphorylation;
KW Complete proteome.
FT MOD_RES 197 197 PHOSPHORYLATION (AUTO-) (BY SIMILARITY).
SQ SEQUENCE 638 AA; 68367 MW; 63D7AF53160206D0 CRC64;

Query Match 1.7%; Score 7; DB 1; Length 638;
Best Local Similarity 100.0%; Pred. No. 81;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 392 EEIEKMK 398
Db |||||
504 EEIEKMK 510

RESULT 49
ID SENS_HUMAN STANDARD; PRT; 755 AA.
AC Q96H10; Q96SAS;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Sentrin-specific protease 5 (EC 3.4.22.-) (Sentrin/SUMO-specific
DE protease SENP5) (Protease FKSG45).
GN SENP5.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta; and Testis;
RX MEDLINE=22388257; PubMed=12477932;
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Schuler G.D.,
RA Klier R.D., Collins B., Buetow K.H., Wagner K.H., Schaefer C.F., Bhat N.K.,
RA Altschul R.F., Zeeberg B., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT "Generation and initial analysis of more than 15,000 full-length
RT human and mouse cDNA sequences.";
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN [2]
RP SEQUENCE OF 305-755 FROM N.A.
RX Wang Y.G., Li T.;
RT "Identification of FKSG45, a novel gene located on human chromosome
RT 3.";
RL Submitted (JAN-2001) to the EMBL/GenBank/DBJ databases.
RN [3]
RP MEDLINE=20267842; PubMed=10806345;
RX Yeh E.T.H., Gong L., Kamitani T.;
RT "Ubiquitin-like proteins: new wines in new bottles.";
RL Gene 248:1-14(2000).
CC -!- FUNCTION: Involved in the release of sentrins (Potential).
CC -!- SIMILARITY: Belongs to peptidase family C48.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; BC008589; AA08589.1; --
CC EMBL; BC030705; AA030705.1; --
CC EMBL; AF335474; AA069630.1; ALT_INT.
CC MEROPS; C48.008; --
CC InterPro; IPR003653; Peptidase_C48.
CC Pfam; PF02902; Peptidase_C48; 1.
CC PROSITE; PS00600; ULP_PROTEASE; 1.
KW Hydrolase; Protease; Thiol protease; Ub1 conjugation pathway.
KW DOMAIN 567 724 PROTEASE
FT ACT_SITE 646 646 BY SIMILARITY.
FT ACT_SITE 663 663 BY SIMILARITY.
FT ACT_SITE 713 713 BY SIMILARITY.
FT CONFLICT 538 538 S -> C (IN REF. 2).
```

```

SQ SEQUENCE 755 AA; 86733 MW; 1B89228FB56B329 CRC64;
Query Match 1.7%; Score 7; DB 1; Length 755;
Best Local Similarity 100.0%; Pred. No. 94;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 204 EEDGSLK 210
DB 443 EEDGSLK 449

RESULT 50
SEN5 MACFA
ID SEN5 MACFA STANDARD; PRT; 755 AA.
AC Q8WP32;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Sentrin-specific protease 5 (EC 3.4.22.-) (Sentrin/SUMO-specific
DE protease SENP5) (Q8A-16408).
GN SENP5.
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Macaca.
OX NCBI_TaxID=9541;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Testis;
RA Hashimoto K., Osada N., Hida M., Kusuda J., Tanuma R., Hirai M.,
RA Teraso K., Sugano S.;
RT "Isolation of novel full-length cDNA clones from macaque testis cDNA
RT libraries."
RL Submitted (NOV-2001) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Involved in the release of sentrins (Potential).
CC -!- SIMILARITY: Belongs to peptidase family C48.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC -----
CC EMBL; AB074445; BAB72076.1; -.
CC InterPro; IPR003653; Peptidase_C48.
CC Pfam; PF02902; Peptidase_C48; 1.
CC PROSITE; PS00600; ULP_PROTEASE; 1.
CC Hydrolase; Protease; Thiol protease; Ub1 conjugation pathway.
CC DOMAIN 563 724 PROTEASE
CC ACT_SITE 646 646 BY SIMILARITY.
CC ACT_SITE 663 663 BY SIMILARITY.
CC ACT_SITE 713 713 BY SIMILARITY.
CC SEQUENCE 755 AA; 86290 MW; 40EC773CA29B8CEA CRC64;

Query Match 1.7%; Score 7; DB 1; Length 755;
Best Local Similarity 100.0%; Pred. No. 94;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 204 EEDGSLK 210
DB 443 EEDGSLK 449

RESULT 51
NH48 CAEL
ID NH48 CAEL STANDARD; PRT; 780 AA.
AC Q94407; Q9BJL2;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Nuclear hormone receptor family member nhr-48.

```

```

GN NHR-48 OR ZK662.3.
OS Caenorhabditis elegans.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC Rhabditidae; Peloderinae; Caenorhabditis.
OX NCBI_TaxID=6239;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Bristol N2;
RA White S.;
RL Submitted (AUG-1996) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE OF 262-780 FROM N.A.
RA Bogdan A., Maina C.V., Yamamoto K., Cohen F., Sluder A.E.;
RT "Caenorhabditis elegans nuclear receptor sequences exhibit biophysical
RT compatibility with the ligand-binding domain fold."
RL Submitted (DEC-2000) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Orphan nuclear receptor.
CC -!- SUBCELLULAR LOCATION: Nuclear (Potential).
CC -!- SIMILARITY: Belongs to the nuclear hormone receptor family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC -----
CC EMBL; Z79604; CAB01900.1; -.
CC EMBL; AF332204; AAK1975.1; -.
CC PIR; T27941; T27941.
CC HSP; P20393; 1A6Y.
CC WormPep; ZK662.3; CE18456.
CC InterPro; IPR008946; Str_ncl_receptor.
CC InterPro; IPR001628; Znf_C4steroid.
CC Pfam; PF00105; zf-C4; 1.
CC PRINTS; PR00047; STROIDFINGER.
CC ProDom; PD000035; Znf_C4steroid; 1.
CC SMART; SM00399; Znf_C4; 1.
CC PROSITE; PS00031; NUCLEAR RECEPTOR; 1.
CC Receptor; Transcription regulation; DNA-binding; Nuclear protein;
CC Zinc-finger.
CC DNA_BIND 100 165 NUCLEAR RECEPTOR-TYPE.
CC ZN_FING 100 120 C4-TYPE.
CC ZN_FING 136 160 C4-TYPE.
CC SEQUENCE 780 AA; 87373 MW; 74922FB93F7D8B40 CRC64;

Query Match 1.7%; Score 7; DB 1; Length 780;
Best Local Similarity 100.0%; Pred. No. 96;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 391 DERIEKM 397
DB 593 DERIEKM 599

RESULT 52
H104 YEAST
ID H104 YEAST STANDARD; PRT; 908 AA.
AC P31539;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Heat shock protein 104.
GN HSP104 OR YLL026W OR L0948.
OS Saccharomyces cerevisiae (Baker's yeast).
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; Saccharomycetaceae; Saccharomyces.
OX NCBI_TaxID=4932;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=X2180 / ATCC 26109;
RX MEDLINE=91375541; PubMed=1896074;

```

RA Parsell D.A., Sanchez Y., Stitzel J.D., Lindquist S.;  
RT "Hsp104 is a highly conserved protein with two essential nucleotide-  
RL binding sites";  
RN Nature 353:270-273 (1991).  
[2]  
RP SEQUENCE FROM N.A.  
RC STRAIN=S288c / AB972;  
RX MEDLINE=973113267; PubMed=9169871;  
RA Johnston M., Hillier L., Biles L., Albermann K., Andre B., Ansoorge W.,  
RA Benes V., Bruckner M., Dalius H., Dubois E., Duesterhoeft A.,  
RA Entian K.-D., Floeth M., Goffeau A., Hebling U., Heumann K.,  
RA Heuss-Neitzel D., Hilbert H., Hilger F., Kleine K., Koetter P.,  
RA Louis E.J., Messenguy F., Meves H.-W., Miosga T., Moestl D.,  
RA Portetelle D., Purnelle B., Reckmann S., Rieger M., Rinke M., Rose M.,  
RA Schaefer M., Scherrens B., Scholler P., Schwager C., Schwarz S.,  
RA Underwood A.P., Urrestazu L.A., Vandenbol M., Verhasselt P.,  
RA Vierendeels F., Voet M., Volkert G., Voss H., Wambutt R., Medler E.,  
RA Wedler H., Zimmermann F.K., Zollner A., Hani J., Honeisel J.D.;  
RT "The nucleotide sequence of Saccharomyces cerevisiae chromosome XII";  
RL Nature 387:87-90 (1997).  
[3]  
RP SEQUENCE OF 749-908 FROM N.A.  
RC STRAIN=S288c;  
RX MEDLINE=97197984; PubMed=9046100;  
RA Purnelle B., Goffeau A.;  
RT "The sequence of 32kb on the left arm of yeast chromosome XII reveals  
RT six known genes, a new member of the seripauperins family and a new  
RT ABC transporter homologous to the human multidrug resistance  
RT protein";  
RL Yeast 13:183-188 (1997).  
CC -!- FUNCTION: Vital for tolerance to heat, ethanol and other stressors.  
CC -!- SUBCELLULAR LOCATION: Nuclear and cytoplasmic.  
CC -!- SIMILARITY: Belongs to the clpA/clpB family.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
DR EMBL; M67479; AAA50477.1; -;  
DR EMBL; Z73131; CAA97475.1; -;  
DR EMBL; Z73130; CAA97474.1; -;  
DR EMBL; X97560; CAA66164.1; -;  
DR PIR; S61476; S61476.  
DR GenOnline; 142021; -;  
DR SWISS-2DPAGE; P31539; YEAST.  
DR SGD; S0003945; HSP104.  
DR GO; GO:0005737; Cytoplasm; IDA.  
DR GO; GO:0005634; C:nucleus; IDA.  
DR GO; GO:0003763; F:chaperonin ATPase activity; IDA.  
DR GO; GO:0003767; F:co-chaperone activity; IDA.  
DR GO; GO:0003773; F:heat shock protein activity; IDA.  
DR GO; GO:0006457; P:protein folding; IDA.  
DR GO; GO:0006950; P:response to stress; IDA.  
DR InterPro; IPR003593; AAA\_ATPase.  
DR InterPro; IPR003959; AAA\_ATPase\_centr.  
DR InterPro; IPR001270; Chaperin\_clpA/B.  
DR InterPro; IPR004176; Clp\_N.  
DR Pfam; PF00004; AAA; 1.  
DR Pfam; PF02861; Clp\_N; 2.  
DR PRINTS; PR00300; CLPPROTEASEA.  
DR SMART; SM00382; AAA; 2.  
DR PROSITE; PS00870; CLPAB\_1; 1.  
DR PROSITE; PS00871; CLPAB\_2; 1.  
DR Chaperone; Heat shock; ATP-binding; Repeat.  
FT DOMAIN 167 411  
FT Chaperone 541 731  
FT NP\_BIND 212 219 ATP (POTENTIAL).  
FT NP\_BIND 614 621 ATP (POTENTIAL).  
FT

SQ SEQUENCE 908 AA; 102034 MW; 4AD0E7E3AF98E318 CRC64;  
Query Match 1.7%; Score 7; DB 1; Length 908;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 220 ASLQEEEL 226  
DB 453 ASLQEEEL 459  
RESULT 53  
M3KA HUMAN  
ID M3KA HUMAN STANDARD; PRT; 954 AA.  
AC Q02779; Q12761; Q14871;  
DT 01-FEB-1994 (Rel. 28, Created)  
DT 30-MAY-2000 (Rel. 39, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE Mitogen-activated protein kinase kinase 10 (EC 2.7.1.37)  
DE (Mixed lineage kinase 2) (Protein kinase MST).  
DE MAP3K10 OR MLK2 OR MST.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RX MEDLINE=96128179; PubMed=8536694;  
RA Dorow D.S., Devereux L., Tu G.F., Price G., Nicholl J.K.,  
RA Sutherland G.R., Simpson R.J.;  
RT "Complete nucleotide sequence, expression, and chromosomal  
RT localisation of human mixed-lineage kinase 2";  
RL Eur. J. Biochem. 234:492-500 (1995).  
[2]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Brain;  
RX MEDLINE=95249256; PubMed=7731697;  
RA Katoh M., Hirai M., Sugimura T., Terada M.;  
RT "Cloning and characterization of MST, a novel (putative)  
RT serine/threonine kinase with SH3 domain";  
RL Oncogene 10:1447-1451 (1995).  
[3]  
RP SEQUENCE OF 244-480 FROM N.A.  
RC TISSUE=Colon epithelium;  
RX MEDLINE=93238756; PubMed=8477742;  
RA Dorow D.S., Devereux L., Dietzsch E., de Kretser T.;  
RT "Identification of a new family of human epithelial protein kinases  
RT containing two leucine/isoleucine-zipper domains";  
RL Eur. J. Biochem. 213:701-710 (1993).  
CC -!- CATALYTIC ACTIVITY: ATP + a protein = ADP + a phosphoprotein.  
CC -!- TISSUE SPECIFICITY: Expressed in brain and skeletal muscle.  
CC -!- SIMILARITY: Belongs to the Ser/Thr family of protein kinases. MAP  
CC kinase kinase subfamily.  
CC -!- SIMILARITY: Contains 1 SH3 domain.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
DR EMBL; X90846; CAA62351.1; -;  
DR EMBL; Z48615; CAA98531.1; -;  
DR PIR; S68178; S68178.  
DR HSP; P11362; IFGK.  
DR Genew; HGNC:6849; MAP3K10.  
DR MIM; 600137; -;  
DR GO; GO:0004672; F:protein kinase activity; TAS.  
DR GO; GO:0006917; P:induction of apoptosis; TAS.  
DR GO; GO:0007254; P:JNK cascade; TAS.

```

GO; GO:0007165; P-signal transduction; TAS.
DR InterPro; IPR000719; Prot_kinase.
DR InterPro; IPR008271; Ser_Thr_pkin_As.
DR InterPro; IPR001452; SH3.
DR InterPro; IPR001245; Tyr_pkinase.
DR Pfam; PF00069; pkinase; 1.
DR Pfam; PF00018; SH3; 1.
DR PRINTS; PR00452; SH3DOMAIN.
DR PRINTS; PR00109; TYRKINASE.
DR ProDom; PD000066; SH3; 1.
DR SMART; SM00326; SH3; 1.
DR PROSITE; PS00107; PROTEIN KINASE ATP; 1.
DR PROSITE; PS00108; PROTEIN KINASE ST; 1.
DR PROSITE; PS00011; PROTEIN_KINASE_DOM; 1.
DR PROSITE; PS00002; SH3; 1.
KW Transferase; Serine/threonine-protein kinase; ATP-binding; SH3 domain.
FI DOMAIN 2 5 POLY-GLU.
FT DOMAIN 16 81 SH3.
FT DOMAIN 98 360 PROTEIN KINASE.
FT NP_BIND 104 112 ATP (BY SIMILARITY).
FT BINDING 125 125 ATP (BY SIMILARITY).
FT ACT_SITE 222 222 BY SIMILARITY.
FT DOMAIN 384 405 LEUCINE-ZIPPER 1 (BY SIMILARITY).
FT DOMAIN 419 440 LEUCINE-ZIPPER 2 (BY SIMILARITY).
FT DOMAIN 449 463 ARG/LYS-RICH (BASIC).
FT CONFLICT 462 464 SRL -> AV (IN REF. 2).
FT CONFLICT 465 480 LKLRGGSHSLPSGF -> AQAGRRQHPALWL (IN REF. 3).
FT CONFLICT 471 471 G -> S (IN REF. 2).
FT CONFLICT 807 807 G -> R (IN REF. 2).
FT CONFLICT 818 818 V -> A (IN REF. 2).
SQ SEQUENCE 954 AA; 103623 MW; 539F4AAA559B0A CRC64;

Query Match
Best Local Similarity 1.7%; Score 7; DB 1; Length 954;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 357 FKSRLL 363
DB 459 FKSRLL 465
|||||

RESULT 54
CAPP SYNE
ID -CAPP SYNE STANDARD; PRT; 1011 AA.
AC Q94B2;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DE Phosphoenolpyruvate carboxylase (EC 4.1.1.31) (PEPCase) (PEPC).
GN PPC OR SYPEPC OR TLL1912.
OS Synechococcus elongatus (Thermosynechococcus elongatus), and
OC Bacteria; Cyanobacteria; Chroococcales; Synechococcus.
NCBI_TaxID=32046, 32053;
RN [1]
RP SEQUENCE FROM N.A.
RC SPECIES=S.elongatus; STRAIN=BP-1;
RX MEDLINE=2225144; PubMed=12240834;
RA Nakamura Y., Kaneko T., Sato S., Ikeuchi M., Kawashima K., Kimura T., Kishida Y.,
RA Watanabe A., Iiguchi M., Kawashima K., Matsuno M., Matsuno A., Nakazaki N.,
RA Kiyokawa C., Kohara M., Matsumoto M., Yamada M., Tabata S.,
RA Shimo S., Sugimoto M., Takuchi C., Yamada M., Tabata S.;
RT "Complete genome structure of the thermophilic cyanobacterium
Thermosynechococcus elongatus BP-1."
RL DNA Res. 9:123-130(2002).
RN [2]
RP SEQUENCE FROM N.A.
RC SPECIES=S.vulcanus.
RA Chen L.M., Omiya T., Hata S., Inoue Y., Izui K.;
RT "Molecular characterization of Synechococcus vulcanus
phosphoenolpyruvate carboxylase."

```

---

```

RL Submitted (MAR-2001) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Through the carboxylation of phosphoenolpyruvate (PEP)
CC it forms oxaloacetate, a four-carbon dicarboxylic acid source for
CC the tricarboxylic acid cycle.
CC -!- CATALYTIC ACTIVITY: Phosphate + oxaloacetate = H(2)O +
CC phosphoenolpyruvate + CO(2).
CC -!- PATHWAY: Tricarboxylic acid cycle.
CC -!- SIMILARITY: Belongs to the PEPCase family.
CC
CC THIS SWISS-PROT entry is copyrighted. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
DR EMBL; AF005375; BAC09464.1; -.
DR EMBL; AB057454; BAB64533.1; -.
DR HAMAP; MF_00595; -.
DR InterPro; IPR001449; PEPCase.
DR Pfam; PF00311; PEPCase; 1.
DR PRINTS; PR00150; PEPCARBOXYLASE.
DR PROSITE; PS00781; PEPCASE_1; FALSE_NEG.
DR PROSITE; PS00393; PEPCASE_2; 1.
KW Lyase; Carbon dioxide fixation; Tricarboxylic acid cycle;
KW Complete proteome.
FT ACT_SITE 207 207 BY SIMILARITY.
FT ACT_SITE 658 658 BY SIMILARITY.
SQ SEQUENCE 1011 AA; 116426 MW; 0A11D4D01FE9E7FE CRC64;

Query Match
Best Local Similarity 1.7%; Score 7; DB 1; Length 1011;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 148 RLEHSY 154
DB 156 RLEHSY 162
|||||

RESULT 55
PAK1_YEAS
ID -PAK1_YEAS STANDARD; PRT; 1142 AA.
AC P38990;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Serine/threonine-protein kinase PAK1 (EC 2.7.1.-).
GN PAK1 OR YER129W OR SYGP-ORF45.
OS Saccharomyces cerevisiae (Baker's yeast).
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
OC Saccharomycetales; Saccharomycetaceae; Saccharomycetes.
NCBI_TaxID=4932;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=S288c / AB972;
RX MEDLINE=97313264; PubMed=9169868;
RA Dietrich F.S., Mulligan J.T., Hennessey K.M., Yelton M.A., Allen E.,
RA Araujo R., Aviles E., Berno A., Brennan T., Carpenter J., Chen E.,
RA Cherry J.M., Chung E., Duncan M., Guzman E., Hartzell G.,
RA Hunnicke-Smith S., Hyman R.W., Kayser A., Komp C., Lashkari D., Lew H.,
RA Lin D., Mosedale D., Nakahara K., Namath A., Norgren R., Oefner P.,
RA Oh C., Petel F.X., Roberts D., Sehl P., Schramm S., Shogren T.,
RA Smith V., Taylor P., Wei Y., Botstein D., Davis R.W.;
RT "The nucleotide sequence of Saccharomyces cerevisiae chromosome V."
RL Nature 387:78-81(1997).
RN [2]
RP SEQUENCE OF 1-657 FROM N.A.
RC STRAIN=A364A;
RX MEDLINE=98000885; PubMed=9341678;
RA Hovland P.G., Tecklenberg M., Sclafani R.A.;
RT "Overexpression of the protein kinase Pak1 suppresses yeast DNA
polymerase mutations."

```



RL Mol. Gen. Genet. 256:45-53 (1997).  
CC -!- FUNCTION: May function by modifying and partially stabilizing  
CC thermolabile DNA polymerases, perhaps during DNA repair.  
CC -!- PTM: Autophosphorylated.  
CC -!- SIMILARITY: Belongs to the Ser/Thr family of protein kinases.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL: U18916; AAC03227.1; -  
CC EMBL: U13398; AAC49840.1; ALT\_TERM.  
CC PIR: S50632; S50632.  
CC Germonline: I39208; -  
CC SGP: S000931; PAK1.  
CC GO: GO:0004672; P:protein kinase activity; IDA.  
CC GO: GO:0006261; P:DNA dependent DNA replication; IGI.  
CC GO: GO:0006468; P:protein amino acid phosphorylation; IDA.  
CC InterPro: IPR000719; Prot\_kinase  
CC InterPro: IPR008271; Ser\_Thr\_pkin\_AS.  
CC InterPro: IPR003290; Ser\_Thr\_pkinase.  
CC Pfam: PF00069; Pkinase; 1.  
CC ProDom: PD000001; Prot\_kinase; 1.  
CC SMART: SM00220; S\_TKc; 1.  
CC PROSITE: PS0107; PROTEIN\_KINASE\_ATP; 1.  
CC PROSITE: PS0108; PROTEIN\_KINASE\_ST; 1.  
CC PROSITE: PS0011; PROTEIN\_KINASE\_DOM; 1.  
CC Transferrase; Serine/threonine-protein kinase; ATP-binding;  
CC Phosphorylation.  
CC DOMAIN 133 448 PROTEIN\_KINASE.  
FT NP\_BIND 139 147 ATP (BY SIMILARITY).  
FT BINDING 162 162 ATP (BY SIMILARITY).  
FT ACT\_SITE 277 277 BY SIMILARITY.  
FT CONFLICT 171 171 Q -> H (IN REF. 2).  
FT CONFLICT 266 268 EYL -> DS (IN REF. 2).  
SQ SEQUENCE 1142 AA; 126871 MW; 425D71B834083F8F CRC64;  
  
Query Match 1.7%; Score 7; DB 1; Length 1142;  
Best Local Similarity 100.0%; Pred. No. 1.3e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 23 LINTSDST 29  
| | | | |  
Db 559 LINTSDST 565  
  
RESULT 56  
PYC1\_YEAST STANDARD; PRT; 1178 AA.  
AC P11154;  
DT 01-JUL-1989 (Rel. 11, Created)  
DT 01-OCT-1996 (Rel. 34, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE Pyruvate carboxylase 1 (EC 6.4.1.1) (Pyruvic carboxylase 1) (PCB 1).  
GN PYC1 OR PIV OR YGL062W.  
OS Saccharomyces cerevisiae (Baker's yeast).  
OC Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;  
OC Saccharomycetales; Saccharomycetaceae; Saccharomycetes.  
OX NCBI\_TaxID=4932;  
RN [1]  
RP SEQUENCE FROM N.A. AND PARTIAL SEQUENCE.  
RX MEDLINE=82298805; PubMed=3042770;  
RA Lim F., Morris C.P., Ochiodoro F., Wallace J.C.;  
RT "Sequence and domain structure of yeast pyruvate carboxylase.";  
RL J. Biol. Chem. 263:11493-11497 (1988).  
RN [2]  
RP SEQUENCE FROM N.A.  
RC STRAIN=S288C;  
RX MEDLINE=97377993; PubMed=9234674;

RA Feuermann M., de Montigny J., Potier S., Souciet J.-L.;  
RT "The characterization of two new clusters of duplicated genes  
RT suggests a 'lego' organization of the yeast Saccharomyces cerevisiae  
RT chromosomes.";  
RN Yeast 13:861-869 (1997).  
RP  
RX SEQUENCE OF 1003-1178 FROM N.A.  
RA MEDLINE=87241529; PubMed=3036126;  
RA Morris C.P., Lim F., Wallace J.C.;  
RT "Yeast pyruvate carboxylase: gene isolation.";  
RL Biochem. Biophys. Res. Commun. 145:390-396 (1987).  
CC -!- FUNCTION: Pyruvate carboxylase catalyzes a 2-step reaction,  
CC involving the ATP-dependent carboxylation of the covalently  
CC attached biotin in the first step and the transfer of the  
CC carboxyl group to pyruvate in the second.  
CC -!- CATALYTIC ACTIVITY: ATP + pyruvate + HCO(3) (-) = ADP + phosphate +  
CC oxaloacetate.  
CC -!- COFACTOR: Biotin and zinc.  
CC -!- PATHWAY: Gluconeogenesis.  
CC -!- SUBUNIT: Homotetramer.  
CC -!- SUBCELLULAR LOCATION: Cytoplasmic.  
CC -!- SIMILARITY: WITH OTHER BIOTIN CARBOXYLASES, LIPOAMIDE TRANSFERASES  
CC AND CARBAMYL PHOSPHATE SYNTHETASES.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL Outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL: J03889; AAA34843.1; -  
CC EMBL: Z72584; CAA96765.1; -  
CC PIR: S64066; QYBYP.  
CC HSP: P24182; IBNC.  
CC Germonline: 141110; -  
CC SGP: S0003030; PYC1.  
CC GO: GO:0005829; C:cytosol; IDA.  
CC GO: GO:0004736; F:pyruvate carboxylase activity; IDA.  
CC InterPro: IPR001882; Biotin\_BS.  
CC InterPro: IPR005482; Biotin\_carb\_C.  
CC InterPro: IPR000089; Biotin\_lipoyl.  
CC InterPro: IPR005479; CPase\_L\_D2.  
CC InterPro: IPR005481; CPase\_L\_N.  
CC InterPro: IPR000891; HMGL-Like.  
CC InterPro: IPR003379; PYC\_OADA.  
CC InterPro: IPR005930; Pyruv\_carbox.  
CC Pfam: PF02785; Biotin\_carb\_C; 1.  
CC Pfam: PF00364; biotin\_lipoyl; 1.  
CC Pfam: PF00289; CPase\_L\_chain; 1.  
CC Pfam: PF02786; CPase\_L\_D2; 1.  
CC Pfam: PF00682; HMGL-Like; 1.  
CC Pfam: PF02436; PYC\_OADA; 1.  
CC TIGRfam: TIGR01235; pyruv\_carbox; 1.  
CC PROSITE: PS00188; BIOTIN\_1.  
CC PROSITE: PS00866; CPASE\_1; 1.  
CC PROSITE: PS00867; CPASE\_2; 1.  
CC Ligase; Multifunctional enzyme; Biotin; Gluconeogenesis; ATP-binding;  
CC Zinc; Multigene family.  
FT NP\_BIND 182 187 ATP (POTENTIAL).  
FT ACT\_SITE 312 312 BY SIMILARITY.  
FT BINDING 1135 1135 BIOTIN (BY SIMILARITY).  
FT CONFLICT 462 462 T -> G (IN REF. 1).  
FT CONFLICT 493 493 V -> D (IN REF. 1).  
FT CONFLICT 595 595 R -> A (IN REF. 1).  
FT CONFLICT 619 619 E -> Q (IN REF. 1).  
FT CONFLICT 664 664 G -> S (IN REF. 1).  
FT CONFLICT 772 772 A -> R (IN REF. 1).  
FT CONFLICT 879 879 E -> Q (IN REF. 1).  
FT CONFLICT 909 909 Q -> K (IN REF. 1).  
SQ SEQUENCE 1178 AA; 130099 MW; BC7110A8AFB23E04 CRC64;

Query Match 1.7%; Score 7; DB 1; Length 1178;  
Best Local Similarity 100.0%; Pred. No. 1.4e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 389 ETDEIE 395  
DB 1033 ETDEIE 1039

RESULT 57  
SYJ2 RAT  
ID SYJ2 RAT STANDARD; PRT; 1248 AA.  
AC 055207;  
DT 16-OCT-2001 (Rel. 40, Created)  
DT 16-OCT-2001 (Rel. 40, Last sequence update)  
DT 15-MAR-2004 (Rel. 43, Last annotation update)  
DE Synaptotagmin 2 (EC 3.1.3.36) (Synaptic inositol-1,4,5-trisphosphate 5-phosphatase 2).  
GN SYNJ2.  
OS Rattus norvegicus (Rat).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
OX NCBI\_TaxID=10116;  
RN [1] SEQUENCE FROM N.A., AND CHARACTERIZATION.  
RP INTERACTION WITH OMP25.  
RX MEDLINE=99286223; PubMed=10357812;  
RA Nemoto Y., De Camilli P.;  
RT "Recruitment of an alternatively spliced form of synaptotagmin 2 to mitochondria by an interaction with the PDZ domain of a mitochondrial outer membrane protein.";  
RL EMBO J. 18:2991-3006(1999).  
CC -!- FUNCTION: Inositol 5-phosphatase which may be involved in distinct membrane trafficking and signal transduction pathways.  
CC -!- CATALYTIC ACTIVITY: 1-phosphatidy-1D-myo-inositol 4,5-bisphosphate + H2O = 1-phosphatidyl-1D-myo-inositol 4-phosphate + phosphate.  
CC -!- SUBUNIT: Binds to GRB2 (by similarity). Isoform 2A binds to OMP25.  
CC -!- SUBCELLULAR LOCATION: CYTOPLASMIC. INTERACTION OF ISOFORM 2A WITH OMP25 RESULTS IN LOCALIZATION TO THE MITOCHONDRIA.  
CC -!- ALTERNATIVE PRODUCTS:  
CC Event=Alternative splicing; Named isoforms=5;  
CC Comment=Additional isoforms seem to exist. Experimental confirmation may be lacking for some isoforms;  
CC Name=2A; Synonyms=7.5kb;  
CC IsoId=O55207-1; Sequence=Displayed;  
CC Name=7.2kb;  
CC IsoId=O55207-5; Sequence=Not described;  
CC Name=6.0kb;  
CC IsoId=O55207-4; Sequence=Not described;  
CC Name=5.2kb;  
CC IsoId=O55207-3; Sequence=Not described;  
CC Name=3.5kb;  
CC IsoId=O55207-2; Sequence=Not described;  
CC -!- TISSUE SPECIFICITY: Widely expressed.  
CC -!- SIMILARITY: In the central section; belongs to the inositol-1,4,5-trisphosphate 5-phosphatase family.  
CC -!- SIMILARITY: Contains 1 SAC domain.  
CC -!- SIMILARITY: Contains 1 RNA recognition motif (RRM) domain.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/

or send an email to license@isb-sib.ch).  
-----  
CC EMBL; U90312; AAB92481.1; -;  
CC InterPro; IPR005135; Exo\_endo\_phos.  
CC InterPro; IPR000300; IPR000300;  
CC InterPro; IPR000504; RNA\_rec\_mot.  
CC InterPro; IPR002013; SYJA\_N.  
CC Pfam; PF03372; Exo\_endo\_phos; 1.  
CC Pfam; PF00076; rrm; 1.  
CC Pfam; PF02383; SYJA\_N; 1.  
CC SMART; SM00128; IPRC; 1.  
CC PROSITE; PS50102; RRM; 1.  
CC PROSITE; PS00030; RRM\_RNP\_1; FALSE\_NEG.  
CC PROSITE; PS0275; SAC; 1.  
CC Hydrolase; Alternative splicing; RNA-binding; Multigene family.  
FT DOMAIN 120 444  
FT DOMAIN 450 ?  
FT DOMAIN 906 985 CATALYTIC (BY SIMILARITY).  
FT DOMAIN 1233 1248 RNA-BINDING (RRM).  
FT DOMAIN 1246 1248 BINDS PDZ DOMAIN OF OMP25.  
FT MUTAGEN 1248 1248 S->A: ABOLISHES OMP25-BINDING.  
FT MUTAGEN 1248 1248 V->A: ABOLISHES OMP25-BINDING.  
SQ SEQUENCE 1248 AA; 138275 MW; 14E4F3521A4EC1A CRC64;  
Query Match 1.7%; Score 7; DB 1; Length 1248;  
Best Local Similarity 100.0%; Pred. No. 1.4e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 84 ALKKILS 90  
DB 119 ALKKILS 125

RESULT 58  
VG37\_BPT2  
ID VG37\_BPT2 STANDARD; PRT; 1341 AA.  
AC P07067;  
DT 01-APR-1988 (Rel. 07, Created)  
DT 01-APR-1988 (Rel. 07, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Long tail fiber protein p37 (Protein Gp37) (Receptor recognizing protein).  
DE 37.  
GN Bacteriophage T2.  
OS Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;  
OC T4-like viruses.  
OX NCBI\_TaxID=10664;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=87112716; PubMed=3806672;  
RA Riede I., Drexler K., Eschbach M.-L., Henning U.;  
RT "DNA sequence of the tail fiber genes 37, encoding the receptor recognizing part of the fiber, of bacteriophages T2 and K3.";  
RL J. Mol. Biol. 191:255-266(1986).  
CC -!- FUNCTION: Structural component of the distal-half tail fiber.  
CC -!- SUBUNIT: The distal half-fiber contains two molecules each of Gp36 and Gp37 and one molecule of Gp35.  
CC -!- SIMILARITY: Belongs to the tail fiber family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/



```
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 96 VVGWYKF 102
Db 820 VVGWYKF 826

RESULT 59
SYJ2_HUMAN
ID SYJ2_HUMAN STANDARD; PRT; 1443 AA.
AC O15056;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Synaptotagmin 2 (EC 3.1.3.36) (Synaptic inositol-1,4,5-trisphosphate 5-
DE phosphatase 2) (Fragment).
GN SYN2 OR KIAA0348.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=97349984; PubMed=9205841;
RA Nagase T., Ishikawa K.-I., Nakajima D., Ohira M., Seki N.,
RA Miyajima N., Tanaka A., Kotani H., Nomura N., Ohara O.;
RT "Prediction of the coding sequences of unidentified human genes. VII.
RT The complete sequences of 100 new cDNA clones from brain which can
RT code for large proteins in vitro."
RL DNA Res. 4:141-150(1997).
CC -!- FUNCTION: Inositol 5-phosphatase which may be involved in distinct
CC membrane trafficking and signal transduction pathways.
CC -!- CATALYTIC ACTIVITY: 1-phosphatidyl-1D-myo-inositol 4,5-
CC bisphosphate + H(2)O = 1-phosphatidyl-1D-myo-inositol 4-phosphate
CC + phosphate.
CC -!- SUBUNIT: Binds to GRB2.
CC -!- SUBCELLULAR LOCATION: PREDOMINANTLY ASSOCIATED WITH THE
CC PARTICULATE FRACTIONS (BY SIMILARITY).
CC -!- ALTERNATIVE PRODUCTS:
CC Event-Alternative splicing; Named isoforms=1;
CC Comment=A number of isoforms are produced;
CC Name=1;
CC IsoId=O15056-1; Sequence=Displayed;
CC -!- DOMAIN: The C-terminal proline-rich region mediates binding only
CC to the SH3 domain-containing protein GRB2.
CC -!- SIMILARITY: In the central section; belongs to the inositol-1,4,5-
CC trisphosphate 5-phosphatase family.
CC -!- SIMILARITY: Contains 1 SAC domain.
CC -!- SIMILARITY: Contains 1 RNA recognition motif (RRM) domain.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; AF039945; AAD02178.1; -.
CC EMBL; AB002346; BAA20805.2; -.
CC GenBank; HGNC:11504; SYNJ2.
CC InterPro; IPR005135; Exo_endo_phos.
CC InterPro; IPR000300; IPPC.
CC InterPro; IPR000504; RNA_rec_mot.
CC InterPro; IPR002013; SYJA_N.
CC Pfam; PF03372; Exo_endo_phos; 1.

Pfam: PF02383; SyJa_N; 1.
SMART; SM00128; IPPC; 1.
DR PROSITE; PS00102; RRM; 1.
DR PROSITE; PS00300; RRM_RNP_1; FALSE_NEG.
DR PROSITE; PS0275; SAC; 1.
KW Hydrolase; Alternative splicing; RNA-binding; Multigene family.
FT NON_TER 1
FT DOMAIN 67 391 SAC.
FT DOMAIN 397 ? CATALYTIC (BY SIMILARITY).
FT DOMAIN 836 915 RNA-BINDING (RRM).
FT DOMAIN 1058 1061 POLY-PRO.
SQ SEQUENCE 1443 AA; 159953 MW; 6C5DAE90FCC1B02B CRC64;

Query Match 1.7%; Score 7; DB 1; Length 1443;
Best Local Similarity 100.0%; Pred.No. 1.6e+02;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 84 ALKKILS 90
Db 66 ALKKILS 72

RESULT 60
UN89_CABEL
ID UN89_CABEL STANDARD; PRT; 6632 AA.
AC O01761; Q17362;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Muscle M-line assembly protein unc-89 (Uncoordinated protein 89).
DE UNC-89 OR C09D1.1.
GN Caenorhabditis elegans.
OS Caenorhabditis elegans.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC Rhabditidae; Peloderinae; Caenorhabditis.
OX NCBI_TaxID=6239;
RN [1]
RP SEQUENCE FROM N.A.; FUNCTION, AND TISSUE SPECIFICITY.
RC STRAIN=Bristol N2;
RX MEDLINE=96180278; PubMed=8603916;
RA Benian G.M., Finley T.L., Tang X., Borodovsky M.;
RT "The Caenorhabditis elegans gene unc-89, required for muscle M-line
RT assembly, encodes a giant modular protein composed of 19 and signal
RT transduction domains."
RL J. Cell Biol. 132:835-848(1996).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=Bristol N2;
RA Du Z., Le T.T., Wilson R.;
RL Submitted (MAY-1997) to the EMBL/GenBank/DBJ databases.
RN [3]
RP REVISIONS.
RA Waterston R.;
RL Submitted (APR-2002) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Structural component of the muscle M-line. Myofilament
CC lattice assembly begins with positional cues laid down in the
CC basement membrane and muscle cell membrane. UNC-89 responds to
CC these signals, localizes, and then participates in assembling an
CC M-line.
CC -!- TISSUE SPECIFICITY: Localizes to the middle of A-bands.
CC -!- SIMILARITY: Contains 1 DEL-homology (DH) domain.
CC -!- SIMILARITY: Contains 1 fibronectin type III domain.
CC -!- SIMILARITY: Contains 49 immunoglobulin-like C2-type domains.
CC -!- SIMILARITY: Contains 1 PH domain.
CC -!- SIMILARITY: Contains 5 RCDSD domains.
CC -!- SIMILARITY: Contains 1 SH3 domain.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
```

```
CC EMBL; U33058; AAB00542.1; ..
DR EMBL; AF003131; AAB54132.2; -.
DR PDB; 1PHO; 20-DEC-00.
DR WormPep; C09D1.1; CE30426.
DR InterPro; IPR008957; FN_III-like.
DR InterPro; IPR003961; FN_III.
DR InterPro; IPR007110; I9-like.
DR InterPro; IPR003598; I9_c2.
DR InterPro; IPR003006; IG_MHC.
DR InterPro; IPR001849; PH.
DR InterPro; IPR007850; RCSD.
DR InterPro; IPR000219; RhGEF.
DR InterPro; IPR001452; SH3.
DR Pfam; PF00041; fn3; 1.
DR Pfam; PF00047; ig; 47.
DR Pfam; PF0169; PH; 1.
DR Pfam; PF05177; RCSD; 5.
DR Pfam; PF0621; RhGEF; 1.
DR Pfam; PF00621; SH3; 1.
DR Pfam; PF00018; SH3; 1.
DR SMART; SM00408; IGC2; 23.
DR SMART; SM00325; RhGEF; 1.
DR SMART; SM00326; SH3; 1.
DR SMART; PS00010; DH; 2; 1.
DR PROSITE; PS00835; IG-LIKE; 49.
DR PROSITE; PS00003; PH_DOMAIN; 1.
DR PROSITE; PS00002; SH3; 1.
KW Muscle protein; Immunoglobulin domain; Repeat; SH3 domain;
KW 3D-structure.
FT DOMAIN 63 127 SH3.
FT DOMAIN 152 330 DH.
FT DOMAIN 342 498 PH.
FT DOMAIN 547 633 IG-LIKE C2-TYPE 1.
FT DOMAIN 648 736 IG-LIKE C2-TYPE 2.
FT DOMAIN 748 838 IG-LIKE C2-TYPE 3.
FT DOMAIN 946 1033 IG-LIKE C2-TYPE 4.
FT DOMAIN 1044 1132 IG-LIKE C2-TYPE 5.
FT DOMAIN 1140 1227 IG-LIKE C2-TYPE 6.
FT DOMAIN 1272 1315 THR-RICH.
FT DOMAIN 1375 1475 RCSD 1.
FT DOMAIN 1479 1585 RCSD 2.
FT DOMAIN 1597 1695 RCSD 3.
FT DOMAIN 1700 1799 RCSD 4.
FT DOMAIN 1800 1860 RCSD 5.
FT DOMAIN 1982 2067 IG-LIKE C2-TYPE 7.
FT DOMAIN 2071 2163 IG-LIKE C2-TYPE 8.
FT DOMAIN 2171 2261 IG-LIKE C2-TYPE 9.
FT DOMAIN 2269 2359 IG-LIKE C2-TYPE 10.
FT DOMAIN 2367 2455 IG-LIKE C2-TYPE 11.
FT DOMAIN 2463 2564 IG-LIKE C2-TYPE 12.
FT DOMAIN 2563 2651 IG-LIKE C2-TYPE 13.
FT DOMAIN 2657 2746 IG-LIKE C2-TYPE 14.
FT DOMAIN 2754 2858 IG-LIKE C2-TYPE 15.
FT DOMAIN 2887 2980 IG-LIKE C2-TYPE 16.
FT DOMAIN 2994 3081 IG-LIKE C2-TYPE 17.
FT DOMAIN 3087 3183 IG-LIKE C2-TYPE 18.
FT DOMAIN 3189 3280 IG-LIKE C2-TYPE 19.
FT DOMAIN 3286 3376 IG-LIKE C2-TYPE 20.
FT DOMAIN 3384 3469 IG-LIKE C2-TYPE 21.
FT DOMAIN 3482 3572 IG-LIKE C2-TYPE 22.
FT DOMAIN 3580 3667 IG-LIKE C2-TYPE 23.
FT DOMAIN 3686 3777 IG-LIKE C2-TYPE 24.
FT DOMAIN 3817 3908 IG-LIKE C2-TYPE 25.
FT DOMAIN 3920 4009 IG-LIKE C2-TYPE 26.
FT DOMAIN 4018 4106 IG-LIKE C2-TYPE 27.
FT DOMAIN 4109 4201 IG-LIKE C2-TYPE 28.
FT DOMAIN 4212 4297 IG-LIKE C2-TYPE 29.
FT DOMAIN 4302 4387 IG-LIKE C2-TYPE 30.
FT DOMAIN 4400 4485 IG-LIKE C2-TYPE 31.
FT DOMAIN 4489 4580 IG-LIKE C2-TYPE 32.
FT DOMAIN 4588 4678 IG-LIKE C2-TYPE 33.
FT DOMAIN 4681 4771 IG-LIKE C2-TYPE 34.
FT DOMAIN 4873 4961 IG-LIKE C2-TYPE 35.
FT DOMAIN 5057 5160 IG-LIKE C2-TYPE 36.
FT DOMAIN 5171 5260 IG-LIKE C2-TYPE 37.
FT DOMAIN 5277 5366 IG-LIKE C2-TYPE 38.
FT DOMAIN 5383 5472 IG-LIKE C2-TYPE 39.
FT DOMAIN 5487 5578 IG-LIKE C2-TYPE 40.
FT DOMAIN 5595 5685 IG-LIKE C2-TYPE 41.
FT DOMAIN 5701 5790 IG-LIKE C2-TYPE 42.
FT DOMAIN 5815 5904 IG-LIKE C2-TYPE 43.
FT DOMAIN 5925 6014 IG-LIKE C2-TYPE 44.
FT DOMAIN 6038 6130 IG-LIKE C2-TYPE 45.
FT DOMAIN 6150 6239 IG-LIKE C2-TYPE 46.
FT DOMAIN 6275 6368 FIBRONECTIN TYPE-III.
FT DOMAIN 6413 6502 IG-LIKE C2-TYPE 47.
FT DOMAIN 6507 6596 IG-LIKE C2-TYPE 48.
FT DISULFID 568 621 POTENTIAL.
FT DISULFID 2908 2975 POTENTIAL.
FT DISULFID 3015 3065 POTENTIAL.
FT DISULFID 3707 3759 POTENTIAL.
FT DISULFID 3826 3890 POTENTIAL.
FT DISULFID 5092 5157 POTENTIAL.
FT DISULFID 5298 5350 POTENTIAL.
FT DISULFID 5616 5669 POTENTIAL.
FT DISULFID 5722 5764 POTENTIAL.
FT DISULFID 5836 5901 POTENTIAL.
FT DISULFID 5946 5998 POTENTIAL.
FT DISULFID 6036 6171 POTENTIAL.
FT DISULFID 6421 6486 POTENTIAL.
FT CONFLICT 2137 2137 A -> P (IN REF. 1).
FT CONFLICT 2245 2247 AKA -> PKP (IN REF. 1).
FT CONFLICT 2258 2258 A -> P (IN REF. 1).
FT CONFLICT 2284 2284 E -> G (IN REF. 1).
FT CONFLICT 2297 2297 M -> I (IN REF. 1).
FT CONFLICT 3531 3531 A -> G (IN REF. 1).
FT CONFLICT 3884 3888 DAGEY -> RRRI (IN REF. 1).
FT CONFLICT 3929 3929 A -> V (IN REF. 1).
FT CONFLICT 5134 5134 A -> P (IN REF. 1).
FT CONFLICT 5145 5145 T -> S (IN REF. 1).
FT CONFLICT 5185 5185 G -> A (IN REF. 1).
FT CONFLICT 5199 5199 K -> N (IN REF. 1).
FT CONFLICT 5202 5202 L -> F (IN REF. 1).
FT CONFLICT 5213 5213 F -> L (IN REF. 1).
FT CONFLICT 6178 6178 A -> G (IN REF. 1).
FT CONFLICT 6268 6268 K -> E (IN REF. 1).
SQ SEQUENCE 6632 AA; 731665 MW; 262D3EDD62960E89 CRC64;
Query Match 1.7%; Score 7; DB 1; Length 6632;
Best Local Similarity 100.0%; Pred.No. 6.1e+02;
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 204 EEDGSLK 210
Db 2515 EEDGSLK 2521
|||||
RESULT 61
KDPP_ECOLI STANDARD; PRT; 29 AA.
ID KPFPF_ECOLI
AC P36937;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-JUN-1994 (Rel. 29, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Protein kDof
GN KDFP OR B0698.1.
OS Escherichia coli.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
OC Enterobacteriaceae; Escherichia.
OX NCBI_TaxID=562;
RN [1]
RP SEQUENCE FROM N.A. PubMed=6145979;
RX MEDLINE=84272710; PubMed=6145979;
Hesse J.E.; Wiczorek L.; Altendorf K.; Reicin A.S.; Dorus E.,
```

```

RA Epstein W.;
RT "Sequence homology between two membrane transport ATPases, the kdp-
RT ATPase of Escherichia coli and the Ca2+-ATPase of sarcoplasmic
RT reticulum.";
RL Proc. Natl. Acad. Sci. U.S.A. 81:4746-4750(1984).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=K12 / MG1655;
RX MEDLINE=97426617; PubMed=9278503;
RA Blattner F.R., Plunkett G. II, Bloch C.A., Perna N.T., Burland V.,
RA Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.,
RA Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
RA Mau B., Shao Y.;
RT "The complete genome sequence of Escherichia coli K-12.";
RL Science 277:1453-1474(1997).
RN [3]
RP SEQUENCE FROM N.A.
RC STRAIN=K12; PubMed=905232;
RX MEDLINE=97061202; PubMed=905232;
RA Oshima T., Alba H., Baba T., Fujita K., Hayashi K., Honjo A.,
RA Ikemoto K., Inada T., Itoh T., Kajihara M., Kanai K., Kashimoto K.,
RA Kimura S., Kitagawa M., Makino K., Masuda S., Miki T., Mizobuchi K.,
RA Mori H., Motomura K., Nakamura Y., Nashimoto H., Nishio Y., Saito N.,
RA Sanpei G., Seki Y., Tagami H., Takemoto K., Wada C., Yamamoto Y.,
RA Yano M., Horiuchi T.;
RT "A 718-kb DNA sequence of the Escherichia coli K-12 genome
RT corresponding to the 12.7-28.0 min region on the linkage map.";
RL DNA Res. 3:137-155(1996).
RN [4]
RP IDENTIFICATION.
RC MEDLINE=93167625; PubMed=1288322;
RA Altendorf K., Siebers A., Epstein W.;
RT "The KDP ATPase of Escherichia coli.";
RL Ann. N.Y. Acad. Sci. 671:228-243(1992).
CC CC
CC -!- FUNCTION: Not known.
CC -!- SUBCELLULAR LOCATION: Inner membrane.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; K02670; -; NOT ANNOTATED CDS.
DR EMBL; AE000173; -; NOT ANNOTATED_CDS.
DR EMBL; D90709; BAA35357.1; -.
DR PIR; T48910; T48910.
DR Ecogene; SG12126; kdpF.
KW Inner membrane; Complete proteome.
SQ SEQUENCE 29 AA; 3072 MW; A925E36F96B17820 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 29;
Best Local Similarity 100.0%; Pred. No. 60;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 130 LVFLLL 135
DB 11 LVFLLL 16

RESULT 62
YC69 HAEIN
ID YC69 HAEIN STANDARD; PRT; 38 AA.
AC P44148;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Hypothetical protein H11269.
GN H11269.
OS Haemophilus influenzae.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;

```

```

OC Pasteurellaceae; Haemophilus.
OK NCBI_TaxID=727;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Rd / KW20 / ATCC 51907;
RX MEDLINE=95350630; PubMed=7542800;
RA Fleischmann R.D., Adams M.D., White O., Clayton R.A., Kirkness E.F.,
RA Kerlavage A.R., Bult C.J., Tomb J.-F., Dougherty B.A., Merrick J.M.,
RA McKenney K., Sutton G., Fitzhugh W., Fields C.A., Gocayne J.D.,
RA Scott J.D., Shirley R., Liu L.-I., Glodek A., Kelley J.M.,
RA Weidman J.F., Phillips C.A., Spriggs T., Hedblom E., Cotton M.D.,
RA Usterback T.R., Hanna M.C., Spriggs T., Hedblom E., Cotton M.D.,
RA Fine L.D., Fritchman J.L., Fuhrmann J.L., Geoghagen N.S.M.,
RA Gnehm C.L., McDonald L.A., Small K.V., Fraser C.M., Smith H.O.,
RA Venter J.C.;
RT "Whole-genome random sequencing and assembly of Haemophilus influenzae
RT Rd.";
RL Science 269:496-512(1995).
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; U32807; AAC22930.1; -.
DR EMBL; D64024; D64024.
DR TIGR; H11269; -.
KW Hypothetical protein; Complete proteome.
SQ SEQUENCE 38 AA; 4562 MW; DFF1140F18742BDF CRC64;

Query Match 1.5%; Score 6; DB 1; Length 38;
Best Local Similarity 100.0%; Pred. No. 76;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 81 NEQALK 86
DB 28 NEQALK 33

RESULT 63
TPCS PRODO
ID TPCS PRODO STANDARD; PRT; 52 AA.
AC P81074;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Troponin C, skeletal muscle (Fragment).
OS Protopterus dolloi (Slender lungfish).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Dipnoi; Lepidosireniformes; Protopterygidae; Protopterus.
OK NCBI_TaxID=27779;
RN [1]
RP SEQUENCE.
RX MEDLINE=97442870; PubMed=9297801;
RA Francois J.M., Altintas A., Gerday C.;
RT "Characterization of the single tyrosine containing troponin C from
RT lungfish white muscle. Comparison with several fast skeletal muscle
RT troponin C's from fish species.";
RL Comp. Biochem. Physiol. 117B:589-598(1997).
CC CC
CC -!- FUNCTION: Troponin is the central regulatory protein of striated
CC muscle contraction. Troponin consists of three components: Tn-I which is
CC the inhibitor of actomyosin ATPase, Tn-T which contains the
CC binding site for tropomyosin and Tn-C. The binding of calcium to
CC Tn-C abolishes the inhibitory action of Tn on actin filaments.
CC -!- MISCELLANEOUS: Skeletal muscle troponin C binds four calcium ions.
CC -!- SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
DR HSSP; P02586; ITN4.
DR InterPro; IPR002048; EF-hand.
DR Pfam; PF00036; ehand; 1.
DR ProDom; PD000012; EF-hand; 1.

```

RT "Functional annotation of a full-length mouse cDNA collection.";  
RL Nature 409:685-690(2001).

[3]  
RX SEQUENCE FROM N.A.  
RA TISSUE=Testis;  
RA MEDLINE=22388257; PubMed=12477932;  
RA Klausner R.D., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Krausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,  
RA Diachenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,  
RA Raha S., Loquellano N.A., McKernan K.J., Abramson R.D., Mullaly S.J.,  
RA Bosak S.A., McGowan P.J., Peters G.J., Malek J.A., Gunaratne P.H.,  
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,  
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalusz D.E.,  
RA Schercher A., Schein J.E., Jones S.J.M., Marra M.A.;  
RA "Generation and initial analysis of more than 15,000 full-length  
RT human and mouse cDNA sequences.";  
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).  
CC -!- SUBCELLULAR LOCATION: Mitochondrial (By similarity).  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC  
CC EMBL; AA060384; -; NOT ANNOTATED CDS.  
CC EMBL; AA175073; -; NOT ANNOTATED CDS.  
CC EMBL; AA184707; -; NOT ANNOTATED CDS.  
CC EMBL; AA288953; -; NOT ANNOTATED CDS.  
CC EMBL; AA270949; -; NOT ANNOTATED CDS.  
CC EMBL; AA110658; -; NOT ANNOTATED CDS.  
CC EMBL; AA607394; -; NOT ANNOTATED CDS.  
CC EMBL; AK008333; BAB25610.1; -;  
CC EMBL; BC059719; AAH59719.1; -;  
CC EMBL; MG11917507; 20101070E04R1k.  
KW Mitochondrion.  
SQ SEQUENCE 58 AA; 6698 MW; 29778A1393D38DCE CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 58;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 367 DKRSKA 372  
DB 42 DKRSKA 47  
|||||  
RESULT 66  
ID 68MP BOVIN STANDARD; PRT; 60 AA.  
AC P14750;  
DT 01-APR-1990 (Rel. 14, Created)  
DT 01-APR-1990 (Rel. 14, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
GN 6.8 kDa mitochondrial proteolipid.  
OS Bos taurus (Bovine).  
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
OC Bovidae; Bovinae; Bos.  
OX NCBI\_TaxID=9913;  
RN [1]  
RP TISSUE=Heart;  
RC

RX MEDLINE=90127394; PubMed=2298292;  
RA Terzi E., Boyot P., van Dorsselaer A., Luu B., Trifilieff E.;  
RT "Isolation and amino acid sequence of a novel 6.8-kDa mitochondrial  
RT proteolipid from beef heart. Use of FAB-MS for molecular mass  
RT determination.";  
RL FEBS Lett. 260:122-126 (1990).  
CC -!- SUBCELLULAR LOCATION: Mitochondrial.  
CC -!- TISSUE SPECIFICITY: HEART, BRAIN AND LIVER MITOCHONDRIA.  
CC -!- MASS SPECTROMETRY: MW=6834.1; METHOD=FAB.  
DR PIR; A34138; A34138.  
KW Mitochondrion.  
SQ SEQUENCE 60 AA; 6834 MW; 0D9AF656B0AFD12 CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 60;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 367 DKRSKA 372  
DB 42 DKRSKA 47  
|||||  
RESULT 67  
ID 7766 METJA STANDARD; PRT; 66 AA.  
AC Q58176;  
DT 01-NOV-1997 (Rel. 35, Created)  
DT 01-NOV-1997 (Rel. 35, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Hypothetical protein MJ0766.  
GN MJ0766.  
OS Methanococcus jannaschii.  
OC Archaea; Euryarchaeota; Methanococci; Methanococcales;  
OC Methanocaldococcaceae; Methanocaldococcus.  
OX NCBI\_TaxID=2190;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=JAL-1 / DSM 2661 / ATCC 43067;  
RA MEDLINE=96337999; PubMed=8688087;  
RA Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann R.D.,  
RA Sutton G., Blake J.A., Fitzgerald L.M., Clayton R.A., Gocayne J.D.,  
RA Kerlavage A.R., Dougherty B.A., Tomb J.-P., Adams M.D., Reich C.I.,  
RA Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,  
RA Scott J.L., Geoghegan N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D.,  
RA Utterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C.,  
RA Cotton M.D., Roberts K.M., Hurst M.A., Kaine B.P., Borodovsky M.,  
RA Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.;  
RT "Complete genome sequence of the methanogenic archaeon, Methanococcus  
RT jannaschii".  
RL Science 273:1058-1073 (1996).  
CC -!- SIMILARITY: TO M.JANNASCHII MJ0582.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC  
CC EMBL; U67522; AAB98773.1; -;  
DR PIR; F64395; F64395.  
DR TIGR; MJ0766; -;  
KW Hypothetical protein; Complete proteome.  
SQ SEQUENCE 66 AA; 7235 MW; A206FD6CB000CCCB CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 66;  
Best Local Similarity 100.0%; Pred. No. 1.2e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 392 EEIEKM 397  
DB 51 EEIEKM 56  
|||||

```

RESULT 68
Y055 NPVOP STANDARD; PRT; 68 AA.
ID Y055 NPVOP STANDARD; PRT; 68 AA.
AC O10313;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Hypothetical 8.0 kDa protein (ORF59).
OS Orygia pseudotsugata multicapsid polyhedrosis virus (OpMPV).
OC Viruses; dsDNA viruses, no RNA stage; Baculoviridae;
OC Nucleopolyhedrovirus.
OX NCBI_TaxID=164623;
RN [1]
SEQUENCE FROM N.A.
RP MEDLINE=97271300; PubMed=9126251;
RA Ahrens C.H., Russell R.R., Funk C.J., Evans J., Harwood S.,
RA Rohmann G.F.;
RT "The sequence of the Orygia pseudotsugata multinucleocapsid nuclear
RT polyhedrosis virus genome."
RL Virology 229:381-399(1997).
CC -!- SIMILARITY: TO CORRESPONDING ORF IN ACMNPV.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL: U75930; AAC59058.1; --
KW Hypothetical protein.
SQ SEQUENCE 68 AA; 7969 MW; FC2D1C4384AF62C9 CRC64;
Query Match 1.5%; Score 6; DB 1; Length 68;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 240 VDKLVK 245
DB 61 VDKLVK 66
-----
RESULT 69
U197 DROME STANDARD; PRT; 78 AA.
ID U197 DROME STANDARD; PRT; 78 AA.
AC Q9VVA8;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Hypothetical protein CG9669.
GN CG9669.
OS Drosophila melanogaster (Fruit fly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC Ephydroidea; Drosophilidae; Drosophila.
OX NCBI_TaxID=7227;
RN [1]
SEQUENCE FROM N.A.
RP STRAIN=Berkley;
RC MEDLINE=20196006; PubMed=10731132;
RA Adams M.D., Celisner S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Ananides P.G., Scher S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.C., Wortman J.R., Vandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazer R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G.G., Nelson C.R., Miklos G.L.G.,
RA Abril J.F., Agbayani A., An H.-J., Andrews-Franckoch C., Baldwin D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berkman B.F., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,

```

RA Kerlavage A.R., Dougherty B.A., Tomb J.-F., Adams M.D., Reich C.I.,  
RA Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,  
RA Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D.,  
RA Utterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C.,  
RA Cotton M.D., Roberts K.M., Hurst M.A., Kaine B.P., Borodovsky M.,  
RA Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.,  
RT "Complete genome sequence of the methanogenic archaeon, Methanococcus  
RT jamaensis.",  
RL Science 273:1058-1073 (1996).  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC DR EMBL; J67509; AAB98607.1; .  
CC DR PIR; G64375; G64375.  
CC DR TIGR; MJ0607; .  
KW Hypothetical protein; Complete proteome.  
SQ SEQUENCE 79 AA; 9398 MW; D89880B93C5B782E CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 79;  
Best Local Similarity 100.0%; Pred. No. 1.4e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 51 DDVEVV 56  
DB 48 DDVEVV 53  
|||||  
  
RESULT 71  
OAGD\_KLEPN STANDARD; PRT; 83 AA.  
ID OAGD\_KLEPN STANDARD; PRT; 83 AA.  
AC P13155;  
DT 01-JAN-1990 (Rel. 13, Created)  
DT 01-JAN-1990 (Rel. 13, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE Oxaloacetate decarboxylase gamma chain (EC 4.1.1.3).  
GN OAGD.  
OS Klebsiella pneumoniae.  
OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;  
OC Enterobacteriaceae; Klebsiella.  
OX NCBI\_TaxID=573;  
RN [1]  
RP SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.  
RX MEDLINE=89359264; PubMed=2549031;  
RA Laussermair E., Schwarz E., Oesterheld D., Reinke H., Beyreuther K.,  
RA Dimroth P.;  
RT "The sodium ion translocating oxaloacetate decarboxylase of  
RT Klebsiella pneumoniae. Sequence of the integral membrane-bound  
RT subunits beta and gamma.",  
RL J. Biol. Chem. 264:14710-14715 (1989).  
RN [2]  
RP SEQUENCE FROM N.A.  
RX STRAIN=ATCC 13882;  
RX MEDLINE=92250486; PubMed=1577734;  
RA der Rest M.E., Siewe R.M., Abbe T., Schwarz E., Oesterheld D.,  
RA Konings W.N.;  
RT "Nucleotide sequence and functional properties of a sodium-dependent  
RT citrate transport system from Klebsiella pneumoniae.",  
RL J. Biol. Chem. 267:8971-8986 (1992).  
CC -----  
CC -1- FUNCTION: Lyase and sodium transporter.  
CC -1- CATALYTIC ACTIVITY: Oxaloacetate = pyruvate + CO(2).  
CC -1- COFACTOR: Requires a sodium ion.  
CC -1- SUBUNIT: Heterotrimer of an alpha, a beta and a gamma subunit.  
CC -1- SUBCELLULAR LOCATION: Membrane-associated.  
CC -1- SIMILARITY: Belongs to the oagD family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -

CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC DR EMBL; M26289; AAA25117.1; .  
CC DR EMBL; M83146; AAA25061.1; .  
CC DR FIR; A36505; A36505.  
CC DR HAMAP; MF\_00404; .; 1.  
CC DR InterPro; IPR005899; Na\_decarbox\_g.  
CC DR Pfam; PF04277; OAD\_gamma; 1.  
CC DR TIGRPFAM; TIGR01195; oadg\_fam; 1.  
KW Decarboxylase; Transmembrane; Lyase; Sodium transport.  
FT TRANSMEM 11 33  
FT SEQUENCE 83 AA; 8909 MW; 493A5B564975591D CRC64;  
SQ SEQUENCE 83 AA; 8909 MW; 493A5B564975591D CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 83;  
Best Local Similarity 100.0%; Pred. No. 1.5e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 130 LVFLLL 135  
DB 23 LVFLLL 28  
|||||  
  
RESULT 72  
DEF2\_MOUSE STANDARD; PRT; 93 AA.  
ID DEF2\_MOUSE STANDARD; PRT; 93 AA.  
AC P28309; O60616; O62537;  
DT 01-DEC-1992 (Rel. 24, Created)  
DT 01-OCT-1996 (Rel. 34, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE Cryptdin-2 precursor.  
GN DEF2.  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX STRAIN=129; TISSUE=Small intestine;  
RX MEDLINE=94245232; PubMed=8188287;  
RA Huttner K.M., Selsted M.E., Ouellette A.J.;  
RT "Structure and diversity of the murine cryptdin gene family.",  
RL Genomics 19:448-453 (1994).  
RN [2]  
RP SEQUENCE OF 59-93.  
RX STRAIN=Swiss; TISSUE=Small intestine;  
RX MEDLINE=92363933; PubMed=1500431;  
RA Selsted M.E., Miller S.I., Henschen A.H., Ouellette A.J.;  
RT "Enteric defensins: antibiotic peptide components of intestinal host  
RT defense.",  
RL J. Cell Biol. 118:929-936 (1992).  
RN [3]  
RP SEQUENCE OF 71-93 FROM N.A.  
RX STRAIN=CS7BL/6J;  
RX MEDLINE=94319082; PubMed=8043949;  
RA Ko M.S., Wang X., Horton J.H., Hagen M.D., Takahashi N.,  
RA Maizaki Y., Nadeau J.H.;  
RT "Genetic mapping of 40 cDNA clones on the mouse genome by PCR.",  
RL Mamm. Genome 5:349-355 (1994).  
CC -----  
CC -1- FUNCTION: Probably contributes to the antimicrobial barrier  
CC function of the small bowel mucosa.  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- TISSUE SPECIFICITY: Paneth cells of the small bowel.  
CC -1- SIMILARITY: Belongs to the corticostatin/defensin family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial



CC entities requires a license agreement (See http://www.isb-sib.ch/announce/  
or send an email to license@isb-sib.ch).

CC -----  
DR EMBL; U02997; AAB60676.1; -;  
DR EMBL; U02996; AAB60676.1; -;  
DR EMBL; U03028; AAB57170.1; -;  
DR EMBL; U05705; AAB50468.1; -;  
DR EMBL; U05706; AAB60469.1; -;  
DR PIR; I48226; I48226.  
DR MGD; MGI:94882; Defcr2.  
DR InterPro; IPR006081; Defensin alpha.  
DR InterPro; IPR006080; Defensin mammal.  
DR InterPro; IPR002366; Defensin\_propep.  
DR Pfam; PF00879; Defensin\_propep; 1.  
DR Pfam; PF00233; defensins; 1.  
DR SMART; SM00048; DFRSN; 1.  
DR PROSITE; PS00269; DEFENSIN; 1.  
KW Defensin; Antibiotic; Signal.  
FT SIGNAL 1 19 POTENTIAL.  
FT PROPEP 20 58  
FT CHAIN 59 93  
FT DISULFID 64 92  
FT DISULFID 66 81  
FT DISULFID 71 91  
FT CONFLICT 87 87 M -> L (IN REF. 3).  
SQ SEQUENCE 93 AA; 10560 MW; 4F05DEA252412B0D CRC64;

Query Match 1.5%; Score 6; DB 1; Length 93;  
Best Local Similarity 100.0%; Pred. No. 1.6e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 220 ASLQEE 225  
Db 52 ASLQEE 57  
|||||

RESULT 73  
RM32\_SCHPO STANDARD; PRT; 103 AA.  
AC C94379;  
DT 16-OCT-2001 (Rel. 40, Created)  
DT 16-OCT-2001 (Rel. 40, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE Probably 60S ribosomal protein L32, mitochondrial precursor.  
GN SPBC1604.13C.  
OS Schizosaccharomyces pombe (Fission yeast).  
OC Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;  
OC Schizosaccharomycetales; Schizosaccharomycetaceae;  
OC Schizosaccharomycetes.  
OX NCBI\_TaxID=4896;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=972;  
RX MEDLINE=21848401; PubMed=11859360;  
RA Wood V., Williams R., Rajandream M.A., Lyne M., Lyne R., Stewart A.,  
RA Sgouras J., Peat N., Hayles J., Baker S., Basham D., Bowman S.,  
RA Brooks K., Brown D., Brown S., Chillingworth T., Churcher C.M.,  
RA Collins S., Connor R., Cronin A., Davis P., Feltwell T., Fraser A.,  
RA Gentles M., Goble A., Hamlin N., Harris D., Hidalgo J., Hodgson G.,  
RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K.,  
RA James K., Jones L., Jones M., Leather S., McDonald S., McLean J.,  
RA Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C.,  
RA Oliver K., O'Neil S., Pearson D., Quail M.A., Rabinovitch E.,  
RA Rutherford K., Rutter S., Saunders D., Seeger K., Sharp S.,  
RA Skelton J., Simmonds M., Squares R., Squares S., Stevens K.,  
RA Taylor K., Taylor R.G., Tivey A., Walsh S.V., Warren T., Whitehead S.,  
RA Woodward J., Volkart G., Aert R., Robben J., Grymonprez B.,  
RA Weltjens I., Vanstreels E., Rieger M., Schaefer M., Mueller-Auer S.,  
RA Gabel C., Fuchs M., Fritzc C., Holzer E., Moestl D., Hilbert H.,  
RA Borzym K., Langer I., Beck A., Leirach H., Reinhardt R., Pohl T.M.,  
RA Eger P., Zimmermann W., Wedler H., Wambutt R., Purnelle B.,  
RA Goffeau A., Cadieu E., Dreano S., Gloux S., Lelaure V., Mottier S.,  
RA Galibert F., Aves S.J., Xiang Z., Hunt C., Moore K., Hurst S.M.,

RA Lucas M., Rochet M., Gaillardin C., Tallada V.A., Garzon A., Thode G.,  
RA Daga R.R., Cruzado L., Jimenez J., Sanchez M., del Rey F., Benito J.,  
RA Dominguez A., Revuelta J.L., Moreno S., Armstrong J., Forburg S.L.,  
RA Cerutti L., Lowe T., McCombie W.R., Paulsen I., Potashkin J.,  
RA Shpakovski G.V., Ussery D., Barrell B.G., Nurse P.;  
RT "The genome sequence of Schizosaccharomyces pombe.";  
RL Nature 415:871-880(2002)  
CC -!- FUNCTION; Component of the large subunit of mitochondrial ribosome  
CC (by similarity).  
CC -!- SUBCELLULAR LOCATION: Mitochondrial (By similarity).  
CC -!- SIMILARITY; Belongs to the L32P family of ribosomal proteins.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/  
CC or send an email to license@isb-sib.ch).  
CC -----  
DR EMBL; AL034433; CRA22346.1; -;  
DR PIR; T39501; T39501.  
DR GeneDB; SPombe; SPBC1604.13C; -;  
DR InterPro; IPR002677; Ribosomal\_L32p.  
DR Pfam; PF01783; Ribosomal\_L32p; 1.  
DR KW Ribosomal protein; Mitochondrion; Transit peptide.  
FT TRANSIT 1 47 MITOCHONDRION (BY SIMILARITY).  
FT CHAIN 48 103 PROBABLE 60S RIBOSOMAL PROTEIN L32.  
SQ SEQUENCE 103 AA; 11620 MW; 186857894BED6B8F CRC64;

Query Match 1.5%; Score 6; DB 1; Length 103;  
Best Local Similarity 100.0%; Pred. No. 1.8e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 358 KRSRL 363  
Db 59 KRSRL 64  
|||||

RESULT 74  
YIS2\_STRCO STANDARD; PRT; 110 AA.  
AC P19781;  
DT 01-FEB-1991 (Rel. 17, Created)  
DT 01-FEB-1991 (Rel. 17, Last sequence update)  
DT 01-FEB-1991 (Rel. 17, Last annotation update)  
DE Insertion element IS110 hypothetical 11.7 kDa protein.  
OS Streptomyces coelicolor.  
OC Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;  
OC Streptomycineae; Streptomycetaceae; Streptomyces.  
OX NCBI\_TaxID=1902;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=A3(2);  
RX MEDLINE=88015544; PubMed=2821490;  
RA Bruton C.J., Chater K.F.;  
RT "Nucleotide sequence of IS110, an insertion sequence of Streptomyces  
coelicolor A3(2)."  
RL Nucleic Acids Res. 15:7053-7065(1987).  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/  
CC or send an email to license@isb-sib.ch).  
CC -----  
DR EMBL; Y00434; CAA68493.1; -;  
DR PIR; B26848; B26848.  
KW Transposable element; Hypothetical protein.  
SQ SEQUENCE 110 AA; 11745 MW; 8A9D92D2F7514D76 CRC64;



Query Match 1.5%; Score 6; DB 1; Length 110;  
Best Local Similarity 100.0%; Pred. No. 1.9e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 382 ASKMSS 387  
DB 75 ASKMSS 80

RESULT 75  
YU44 PYRAE STANDARD; PRT; 110 AA.  
AC Q8TX7;  
DT 28-FEB-2003 (Rel. 41, Created)  
DT 28-FEB-2003 (Rel. 41, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE Hypothetical protein PAE3044.  
GN PAE3044.  
OS Pyrobaculum aerophilum.  
OC Archaea; Crenarchaeota; Thermoprotei; Thermoproteales;  
OC Thermoproteaceae; Pyrobaculum.  
OX NCBI\_TaxID=13773;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=IM2 / ATCC 51768 / DSM 7523;  
RX MEDLINE=21664397; PubMed=11792869;  
RA Fitz-Gibbon S.T., Ladner H., Kim U.-J., Stetter K.O., Simon M.I.,  
RA Miller J.H.;  
RT "Genome sequence of the hyperthermophilic crenarchaeon Pyrobaculum  
aerophilum";  
RL Proc. Natl. Acad. Sci. U.S.A. 99:984-989(2002).  
CC -!- SIMILARITY: Belongs to the PDCD5 family.  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AE009908; AAL64632.1; --  
CC HAMAP; MF\_00026; -; 1.  
CC InterPro; IPR002836; TFA19-related.  
CC Pfam; PF01984; GADNA bind; 1.  
CC ProDom; PD008148; TFA19-related; 1.  
CC Hypothetical protein; Complete proteome.  
KW Hypothetical protein; Complete proteome.  
SQ SEQUENCE 110 AA; 12925 MW; 6873968F0DD32A35 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 110;  
Best Local Similarity 100.0%; Pred. No. 1.9e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 84 ALKKIL 89  
DB 42 ALKKIL 47

RESULT 76  
RL30 ORYZA STANDARD; PRT; 111 AA.  
ID RL30 ORYZA  
AC Q9SG6;  
DT 28-FEB-2003 (Rel. 41, Created)  
DT 28-FEB-2003 (Rel. 41, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE 60S ribosomal protein L30.  
GN RPL30.  
OS Oryza sativa (Rice).  
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;  
OC Ehrhartoideae; Oryzaceae; Oryza.  
OX NCBI\_TaxID=4530;  
RN [1]

RP SEQUENCE FROM N.A.  
RC STRAIN=cv. Nipponbare;  
RA Sasaki T., Matsumoto T., Yamamoto K.;  
RT "Oryza sativa nipponbare (GA3) genomic DNA, chromosome 1, PAC  
clone:PO38F12";  
RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.  
CC -!- SIMILARITY: Belongs to the L30E family of ribosomal proteins.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AP000836; BAA88178.1; --  
CC HSP; P14120; ICN9.  
CC Gramene; Q9SDG6; -  
CC InterPro; IPR000231; Ribosomal L30e.  
CC InterPro; IPR004038; Ribosomal L7A.  
CC Pfam; PF01248; Ribosomal L7Ae; 1.  
CC ProDom; PD004495; Ribosomal L30e; 1.  
CC PROSITE; PS00709; RIBOSOMAL\_L30e\_1; 1.  
CC PROSITE; PS00993; RIBOSOMAL\_L30e\_2; 1.  
KW Ribosomal protein.  
SQ SEQUENCE 111 AA; 12363 MW; 083E7CDE1304C04F CRC64;

Query Match 1.5%; Score 6; DB 1; Length 111;  
Best Local Similarity 100.0%; Pred. No. 1.9e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 177 LGYKTV 182  
DB 29 LGYKTV 34

RESULT 77  
RL30 EUPES STANDARD; PRT; 112 AA.  
ID RL30 EUPES  
AC Q9MSN6;  
DT 28-FEB-2003 (Rel. 41, Created)  
DT 28-FEB-2003 (Rel. 41, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE 60S ribosomal protein L30.  
GN RPL30.  
OS Euphorbia esula (Leafy spurge).  
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;  
OC eurosids I; Malpighiales; Euphorbiaceae; Euphorbioideae; Euphorbiae;  
OC Euphorbia.  
OX NCBI\_TaxID=3993;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Anderson J.V., Horvath D.P.;  
RT "Identification of mRNAs expressed in underground adventitious buds of  
Euphorbia esula (leafy spurge).";  
RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.  
CC -!- SIMILARITY: Belongs to the L30E family of ribosomal proteins.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC  
CC EMBL; AF227621; AAF34766.1; --  
CC HSP; P14120; ICN9.  
CC InterPro; IPR000231; Ribosomal L30e.  
CC InterPro; IPR004038; Ribosomal L7A.  
CC Pfam; PF01248; Ribosomal L7Ae; 1.  
RN [1]

```

DR ProDom; PD004495; Ribosomal_L30e; 1.
DR PROSITE; PS00709; RIBOSOMAL_L30E_1; FALSE_NEG.
DR PROSITE; PS00993; RIBOSOMAL_L30E_2; 1.
KW Ribosomal protein.
SQ SEQUENCE 112 AA; 12284 MW; B4018556AF67E93F CRC64;

Query Match      1.5%; Score 6; DB 1; Length 112;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 177 LGYKTV 182
DB 29 LGYKTV 34

RESULT 78
RL30 LUPLU
ID RL30 LUPLU STANDARD; PRT; 112 AA.
AC O49884;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE 60S ribosomal protein L30.
GN RPL30.
OS Lupinus luteus (Yellow lupine).
OC Eukaryota; Viridiplantae; Streptophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC eurosids I; Fabales; Fabaceae; Papilionoideae; Genisteae; Lupinus.
OX NCBI_TaxID=3873;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. Ventus; TISSUE=Epicotyl;
RA Nuc P.W., Nuc K.T., Ziolkowski P.A., Slonski R.;
RT "Structure and organization of the yellow lupine ribosomal protein L30
RT genes.";
RL Submitted (FEB-1998) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the L30E family of ribosomal proteins.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AJ223316; CAA11256.1; -.
CC HSSP; P14120; ICN9.
CC InterPro; IPR000231; Ribosomal_L30e.
CC InterPro; IPR004038; Ribosomal_L7A.
CC Pfam; PF01248; Ribosomal_L7Ae; 1.
CC ProDom; PD004495; Ribosomal_L30e; 1.
CC PROSITE; PS00709; RIBOSOMAL_L30E_1; 1.
CC PROSITE; PS00993; RIBOSOMAL_L30E_2; 1.
KW Ribosomal protein.
SQ SEQUENCE 112 AA; 12332 MW; C696CA64824BDE61 CRC64;

Query Match      1.5%; Score 6; DB 1; Length 112;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 177 LGYKTV 182
DB 29 LGYKTV 34

RESULT 79
RL30 MAIZE
ID RL30 MAIZE STANDARD; PRT; 112 AA.
AC O48558;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)

```

```

DE 60S ribosomal protein L30.
GN RPL30.
OS Zea mays (Maize).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC PACAD clade; Panicoideae; Andropogoneae; Zea.
OX NCBI_TaxID=4577;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. B73;
RA Ahluwalia K.K., Baysdorfer C.;
RL Submitted (NOV-1997) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the L30E family of ribosomal proteins.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AF034949; AAB88620.1; -.
CC PIR; T01411; T01411.
CC HSSP; P14120; ICN9.
CC InterPro; IPR000231; Ribosomal_L30e.
CC InterPro; IPR004038; Ribosomal_L7A.
CC Pfam; PF01248; Ribosomal_L7Ae; 1.
CC ProDom; PD004495; Ribosomal_L30e; 1.
CC PROSITE; PS00709; RIBOSOMAL_L30E_1; 1.
CC PROSITE; PS00993; RIBOSOMAL_L30E_2; 1.
KW Ribosomal protein.
SQ SEQUENCE 112 AA; 12491 MW; 1D9925D10F1A7CB2 CRC64;

Query Match      1.5%; Score 6; DB 1; Length 112;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 177 LGYKTV 182
DB 29 LGYKTV 34

RESULT 80
YJ74 AQUAE
ID YJ74 AQUAE STANDARD; PRT; 114 AA.
AC O67784;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Hypothetical protein AQ_1974.
GN AQ_1974.
OS Aquifex aeolicus.
OC Bacteria; Aquificae; Aquificales; Aquificaceae; Aquifex.
OX NCBI_TaxID=63363;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=VF5;
RX MEDLINE=98196666; PubMed=9537320;
RA Deckert G., Warren P.V., Gaasterland T., Young W.G., Lenox A.L.,
RA Graham D.B., Overbeek R., Sneed M.A., Keller M., Aujaay M., Huber R.,
RA Feldman R.A., Short J.M., Olson G.J., Swanson R.V.;
RT "The complete genome of the hyperthermophilic bacterium Aquifex
RT aeolicus";
RL Nature 392:353-358(1998).
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).

```

```

CC EMBL; AE000766; AAC07755.1; -.
DR PIR; D70469; D70469.
KW Hypothetical protein; Complete proteome.
SQ SEQUENCE 114 AA; 13914 MW; 0561DBF858B8DF2 CRC64;

Query Match
  1.5%; Score 6; DB 1; Length 114;
Best Local Similarity 100.0%; Pred. No. 2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 85 LKXKLS 90
DB 2 LKXKLS 7

RESULT 81
NU3M_SQUAC STANDARD; PRT; 116 AA.
ID Q9Z247;
AC Q9Z247;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE NADH-ubiquinone oxidoreductase chain 3 (EC 1.6.5.3).
GN MTND3 OR ND3
OS Squalus acanthias (Spiny dogfish).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Vertebrata; Chondrichthyes;
OC Elasmobranchii; Squala; Squaloidae; Squalidae; Squalus.
OX NCBI_TaxID=7797;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=99091711; PubMed=9873084;
RA Raamussen A.S.; Arnason U.;
RT "Phylogenetic studies of complete mitochondrial DNA molecules place
RT cartilaginous fishes within the tree of bony fishes.";
RL J. Mol. Evol. 48:118-123(1999).
CC -!- CATALYTIC ACTIVITY: NADH + ubiquinone = NAD(+) + ubiquinol.
CC -!- SIMILARITY: Belongs to the complex I subunit 3 family.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; Y18134; CAA77056.1; -.
DR PIR; T11541; T11541.
DR InterPro; IPR000440; Oxidored_q4.
DR Pfam; PF00507; oxidored_q4; 1.
KW Oxidoreductase; NAD; Ubiquinone; Mitochondrion.
SQ SEQUENCE 116 AA; 12907 MW; 5A87A2557435793F CRC64;

Query Match
  1.5%; Score 6; DB 1; Length 116;
Best Local Similarity 100.0%; Pred. No. 2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 134 LLTPSI 139
DB 82 LLTPSI 87

RESULT 82
AMC2_PIG STANDARD; PRT; 117 AA.
ID P22952;
AC P22952;
DT 01-AUG-1991 (Rel. 19, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Alveolar macrophage chemotactic factor II precursor (AMCF-II).
DR Sus scrofa (Pig).
OS Sus scrofa; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

```

```

OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 37-66.
RX TISSUE=Lung;
MEDLINE=93041741; PubMed=1420165;
RA Goodman R.B.; Foster D.C.; Mathews S.L.; Osborn S.G.; Kuipjer J.L.;
RA Forstrom J.W.; Martin T.R.;
RT "Molecular cloning of porcine alveolar macrophage-derived neutrophil
RT chemotactic factors I and II; identification of porcine IL-8 and
RT another intercrine-alpha protein.";
RL Biochemistry 31:10483-10490(1992).
RN [2]
RP SEQUENCE OF 37-66.
RX STRAIN=Vorkshire;
MEDLINE=91217086; PubMed=1850745;
RA Goodman R.B.; Forstrom J.W.; Osborn S.G.; Chi E.Y.; Martin T.R.;
RT "Identification of two neutrophil chemotactic peptides produced by
RT porcine alveolar macrophages.";
RL J. Biol. Chem. 266:8455-8463(1991).
CC -!- FUNCTION: Has chemotactic activity for porcine, and in a lesser
CC extent, for human neutrophils.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Alveolar macrophages.
CC -!- INDUCTION: By lipopolysaccharide (LPS).
CC -!- SIMILARITY: Belongs to the intercrine alpha (chemokine Cx)
CC family.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; M99368; AAA30991.1; -.
DR PIR; B39819; B39819.
DR PIR; B44253; B44253.
DR HSP; P02775; INAP.
DR InterPro; IPR001811; Chemokine_IL8.
DR InterPro; IPR001089; CXc_chemokine_sm1.
DR Pfam; PF00048; IL8; 1.
DR PRINTS; PR00437; SMALLCYTCKXC.
DR SMART; SM00199; SCY; 1.
DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
KW Cytokine; Chemotaxis; Inflammatory response; Signal.
FT SIGNAL 1 36
FT CHAIN 37 117
FT ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
FT II.
FT BY SIMILARITY.
FT DISULFID 52 78
FT DISULFID 54 94
FT BY SIMILARITY.
SQ SEQUENCE 117 AA; 12343 MW; CD3D27410934F910 CRC64;

Query Match
  1.5%; Score 6; DB 1; Length 117;
Best Local Similarity 100.0%; Pred. No. 2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 133 LLTPS 138
DB 25 LLTPS 30

RESULT 83
YE55_PYRHO STANDARD; PRT; 120 AA.
ID YE55_PYRHO
AC CS9124;
DT 30-MAY-2000 (Rel. 39, Created)
DT 30-MAY-2000 (Rel. 39, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Hypothetical protein PH1455.
GN PH1455.
OS Pyrococcus horikoshii.

```

```

OC Archaea; Euryarchaeota; Thermococci; Thermococcales; Thermococcaceae;
OC Pyrococcus.
RX NCBI_TaxID=53953;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=OT3;
RX MEDLINE=98344137; PubMed=9679194;
RA Kawarayashi Y., Sawada M., Horikawa H., Haikawa Y., Hino Y.,
RA Yamamoto S., Sekine M., Baba S.-I., Kosugi H., Hosoyama A., Nagai Y.,
RA Sakai M., Ogura K., Otsuka R., Nakazawa H., Takamiya M., Ohfuku Y.,
RA Funahashi T., Tanaka T., Kudo H., Yamazaki J., Kishida N., Oguchi A.,
RA Aoki K.-I., Yoshizawa T., Nakamura Y., Robb F.T., Horikoshi K.,
RA Masuchi Y., Shizuya H., Kikuchi H.;
RT "Complete sequence and gene organization of the genome of a hyper-
RT thermophilic archaeobacterium, Pyrococcus horikoshii OT3.";
RL DNA Res. 5:55-76(1998).
CC -!- SIMILARITY: Belongs to the UPF0091 family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AP000006; BAA30562.1; -.
DR PIR; B71020; B71020.
DR InterPro; IPR005133; Pfam; Mnhg_YufB.
DR Pfam; PF03334; Pfam; Mnhg_YufB; 1.
DR TIGRFAMs; TIGR01300; CPA3_mnhg_phaG; 1.
KW Hypothetical protein; Complete proteome.
SQ SEQUENCE 120 AA; 13088 MW; B9E8730F741FB872 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 120;
Best Local Similarity 100.0%; Pred. No. 2e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 131 VFLLLT 136
DB 76 VFLLLT 81

RESULT 84
ZEAV MAIZE
ID ZEAV MAIZE STANDARD; PRT; 122 AA.
AC P05615.
DT 01-NOV-1988 (Rel. 09, Created)
DT 01-NOV-1988 (Rel. 09, Last sequence update)
DE Zein-alpha (22 kDa) (Clone B49) (Fragment).
OS Zea mays (Maize).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
OC PACAD clade; Panicoideae; Andropogoneae; Zea.
OX NCBI_TaxID=4577;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=84207881; PubMed=6897917;
RA Geraghty D.E., Messing J., Rubenstein I.;
RT "Sequence analysis and comparison of cDNAs of the zein multigene
RT family.";
RL EMBO J. 1:1329-1335(1982).
CC -!- FUNCTION: Zeins are major seed storage proteins.
CC -!- MISCELLANEOUS: The alpha zeins of 19 kDa and 22 kDa account for
CC 70% of the total zein fraction. They are encoded by a large
CC multigene family.
CC -!- MISCELLANEOUS: STRUCTURALLY, 22K AND 19K ZEINS ARE COMPOSED OF
CC NINE ADJACENT, TOPOLOGICALLY ANTIPARALLEL HELICES CLUSTERED WITHIN
CC A DISTORTED CYLINDER.
DR PIR; B22762; ZIZM49.
DR MaizeDB; 58096; -.
DR InterPro; IPR002530; Zein.

```

```

DR Pfam; PF01559; Zein; 1.
KW Seed storage protein; Repeat; Multigene family.
FT NON_TER 1
SQ SEQUENCE 122 AA; 13424 MW; CADF45F2A3F08A7A CRC64;

Query Match 1.5%; Score 6; DB 1; Length 122;
Best Local Similarity 100.0%; Pred. No. 2.1e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 165 PLVVAN 170
DB 80 PLVVAN 85

RESULT 85
PFDB HALNI
ID PFDB HALNI STANDARD; PRT; 125 AA.
AC Q9HSH0;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Prefoldin beta subunit (GimC beta subunit).
GN PFDB OR VNG0234C.
OS Halobacterium sp. (strain NRC-1 / ATCC 700922 / JCM 11081).
OC Archaea; Euryarchaeota; Halobacteria; Halobacteriales;
OC Halobacteriaceae; Halobacterium.
OX NCBI_TaxID=64091;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20504483; PubMed=11016950;
RA Ng W.V., Kennedy S.P., Mahairas G.G., Berquist B., Pan M.,
RA Shukla H.D., Lasky S.R., Baliga N.S., Thorsson V., Sbrogna J.,
RA Swartzell S., Weir D., Hall J., Dahl T.A., Welti R., Goo Y.A.,
RA Leithauer B., Keller K., Cruz R., Danson M.J., Hough D.W.,
RA Maddocks D.G., Jabloncki P.E., Krebs M.P., Angevine C.M., Dale H.,
RA Ikenbarger T.A., Beck R.P., Pohlschroder M., Spudis J.L., Jung K.-H.,
RA Alam M., Freitas T., Hou S., Daniels C.J., Dennis P.P., Omer A.D.,
RA Ebhardt H., Lowe T.M., Liang P., Riley M., Hood L., DasSarma S.;
RT "Genome sequence of Halobacterium species NRC-1.";
RL Proc. Natl. Acad. Sci. U.S.A. 97:12176-12181(2000).
CC -!- FUNCTION: Molecular chaperone capable of stabilizing a range of
CC proteins. Seems to fulfil an ATP-independent, HSP70-like function
CC in archaeal de novo protein folding (By similarity).
CC -!- SUBUNIT: Heterohexamer of two alpha and four beta subunits (By
CC similarity).
CC -!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
CC -!- SIMILARITY: Belongs to the prefoldin beta subunit family.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AE004987; AGL18836.1; -.
DR PIR; H84183; H84183.
DR HAMAP; MF_00307; -; 1.
DR InterPro; IPR002777; PrefoldinKE2.
DR Pfam; PF01920; KE2; 1.
KW Chaperone; Complete proteome.
SQ SEQUENCE 125 AA; 13806 MW; C22F651653A8917F CRC64;

Query Match 1.5%; Score 6; DB 1; Length 125;
Best Local Similarity 100.0%; Pred. No. 2.1e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 221 SLOEEL 226
DB 103 SLOEEL 108

```

```
RESULT 86
Y576_HAEIN STANDARD; PRT; 126 AA.
ID P44762;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Hypothetical protein H10576.
GN H10576.
OS Haemophilus influenzae.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
OC Pasteurellaceae; Haemophilus.
OX NCBI_TaxID=727;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=RD / KW20 / ATCC 51907;
RX MEDLINE=95350630; PubMed=7542800;
RA Fleischnann R.D., Adams M.D., White O., Clayton R.A., Kirkness E.F.,
RA Kervilange A.R., Bult C.J., Tomb J.-F., Dougherty B.A., Merrick J.M.,
RA McKenney K., Sutton G., Fitzhugh W., Fields C.A., Gocayne J.D.,
RA Scott J.D., Shirley R., Liu L.-I., Glodek A., Kelley J.M.,
RA Weidman J.F., Phillips C.A., Spriggs T., Hedblom E., Cotton M.D.,
RA Uterback T.R., Hanna M.C., Nguyen D.T., Saudek D.M., Brandon R.C.,
RA Fine L.D., Fritchman J.L., Fuhrmann J.L., Geoghagen N.S.M.,
RA Gnehm C.L., McDonald L.A., Small K.V., Fraser C.M., Smith H.O.,
RA Venter J.C.;
RT "Whole-genome random sequencing and assembly of Haemophilus influenzae
RD."
RL Science 269:496-512(1995).
CC -1- SIMILARITY: Belongs to the UPF0163 (dsrE) family.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; U32739; AAC22234.1; -.
CC DR PIR; C64155; C64155.
CC DR TIGR; H10576; -.
CC DR HAMAP; MF_00390; -.
CC DR InterPro; IPR003787; DsrE.
CC DR Pfam; PF02635; DsrE; 1.
CC DR Hypothetical protein; Complete proteome.
CC SEQUENCE 126 AA; 13997 MW; A237D65A4C46D011 CRC64;
Query Match 1.5%; Score 6; DB 1; Length 126;
Best Local Similarity 100.0%; Pred. No. 2.1e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 319 VVDNLT 324
DB 87 VVDNLT 92
|||||
RESULT 87
Y501_PASMU STANDARD; PRT; 126 AA.
ID YB01_PASMU
AC Y9CLV1;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Hypothetical protein PM1101.
GN PM1101.
OS Pasteurella multocida.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Pasteurellales;
OC Pasteurellaceae; Pasteurella.
OX NCBI_TaxID=747;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Pm70;
RX "Complete genomic sequence of Pasteurella multocida Pm70.";
Proc. Natl. Acad. Sci. U.S.A. 98:3460-3465(2001).
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; AB006151; AAK03185.1; -.
CC DR Hypothetical protein; Transmembrane; Complete proteome.
CC FT TRANSMEM 40 57 Potential.
CC FT TRANSMEM 72 94 Potential.
CC SQ SEQUENCE 126 AA; 14092 MW; E27FA8E31D51DB46 CRC64;
Query Match 1.5%; Score 6; DB 1; Length 126;
Best Local Similarity 100.0%; Pred. No. 2.1e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 15 LGALAF 20
DB 45 LGALAF 50
|||||
RESULT 88
RS11_NITEU STANDARD; PRT; 129 AA.
ID RS11_NITEU
AC Q82X71;
DT 10-OCT-2003 (Rel. 42, Created)
DT 10-OCT-2003 (Rel. 42, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE 30S ribosomal protein S11.
DE R3SK OR NE0424.
GN Nitrosomonas europaea.
OS Nitrosomonas europaea.
OC Bacteria; Proteobacteria; Betaproteobacteria; Nitrosomonadales;
OC Nitrosomonadaceae; Nitrosomonas.
OX NCBI_TaxID=915;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=ATCC 19718 / IFO 14298;
RX MEDLINE=22586410; PubMed=12700255;
RA Chain P., Lamerdin J.E., Larimer F.W., Regala W., Lao V., Land M.,
RA Hauser L., Hooper A.S., Klotz M.G., Norton J., Sayavedra-Soto L.A.,
RA Arciero D.M., Hommes N.G., Whittaker M.M., Arp D.J.;
RT "Complete genome sequence of the ammonia-oxidizing bacterium and
RL J. Bacteriol. 185:2759-2773(2003).
CC -1- FUNCTION: Located on the platform of the 30S subunit, it bridges
CC several disparate RNA helices of the 16S rRNA. Forms part of the
CC Shine-Dalgarno cleft in the 70S ribosome (By similarity).
CC -1- SUBUNIT: Part of the 30S ribosomal subunit. Interacts with
CC proteins S7 and S18. Binds to IF-3 (By similarity).
CC -1- SIMILARITY: Belongs to the S11P family of ribosomal proteins.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC
CC EMBL; BX321857; CAD84335.1; -.
CC DR HAMAP; MF_01310; -.
CC DR InterPro; IPR001971; Ribosomal_S11.
CC DR Pfam; PF00411; Ribosomal_S11; 1.
CC DR ProDom; PD001010; Ribosomal_S11; 1.
CC DR PROSITE; PS00054; Ribosomal_S11; 1.
CC Ribosomal protein; RNA-binding; rRNA-binding; Complete proteome.
KW
```

SEQ	SEQUENCE	129 AA; 13750 MW; E6827A2D1E2FC8C9	CRC64;
Query Match	1.5%; Score 6; DB 1; Length 129;		
Best Local Similarity	100.0%; Pred.No. 2.2e+02;		
Matches	6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
QY	92 VKKNVV 97		
Db	12 VKKNVV 17		
RESULT 89			
V132_FOWPV	STANDARD;	PRT; 129 AA.	
ID	P153T4;		
AC	01-APR-1990 (Rel. 14, Created)		
DT	01-APR-1990 (Rel. 14, Last sequence update)		
DT	16-OCT-2001 (Rel. 40, Last annotation update)		
DE	Protein FV132.		
GN	FPV132 OR FP6.		
OS	Fowlpox virus (FPV).		
OC	Viruses; dsDNA viruses, no RNA stage; Poxviridae; Chordopoxvirinae;		
OC	Avipoxvirus.		
NCBI	TaxID=10261;		
NCBI	TaxID=10261;		
SEQUENCE FROM N.A.			
STRAIN=FP-9 / Isolate HP-444;			
MEDLINE=80258470; PubMed=2838574;			
Binn M.M., Tomley F.M., Campbell J., Boursnell M.E.G.;			
"Comparison of a conserved region in fowlpox virus and vaccinia virus			
"Genomes and the translocation of the fowlpox virus thymidine kinase			
gene.";			
J. Gen. Virol. 69:1275-1283(1988).			
SEQUENCE FROM N.A.			
STRAIN=Salisbury;			
MEDLINE=87321104; PubMed=2820129;			
Drillien R., Spehrer D., Villevall D., Lecocq J.P.;			
"Similar genetic organization between a region of fowlpox virus DNA			
and the vaccinia virus HindIII J fragment despite divergent location			
of the thymidine kinase gene.";			
Virol. 74:3815-3831(2000).			
VIROLOGY 160:203-209(1987).			
SEQUENCE FROM N.A.			
MEDLINE=20193820; PubMed=10729156;			
Afonso C.L., Tulman E.R., Lu Z., Zsak L., Kutish G.F., Rock D.L.;			
"The genome of fowlpox virus.";			
J. Virol. 74:3815-3831(2000).			
-1- SIMILARITY: Belongs to the poxviruses L5 family.			
This SWISS-PROT entry is copyright. It is produced through a collaboration			
between the Swiss Institute of Bioinformatics and the EMBL outstation -			
the European Bioinformatics Institute. There are no restrictions on its			
use by non-profit institutions as long as its content is in no way			
modified and this statement is not removed. Usage by and for commercial			
entities requires a license agreement (See <a href="http://www.isb-sib.ch/announcement">http://www.isb-sib.ch/announcement</a>			
or send an email to <a href="mailto:license@isb-sib.ch">license@isb-sib.ch</a> ).			
EMBL; D00320; BAA00229.1; -.			
EMBL; M17418; AAR66420.1; -.			
EMBL; AF198100; AAF44476.1; -.			
FIR; JS0226; WNVZP6.			
InterPro; IPR006956; Pox L5.			
Pfam; PF04872; Pox L5; 1.			
SEQUENCE 129 AA; 14745 MW; DB99CCC282548A5B			
CRC64;			
Query Match	1.5%; Score 6; DB 1; Length 129;		
Best Local Similarity	100.0%; Pred.No. 2.2e+02;		
Matches	6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
QY	204 EDGSL 209		
Db	77 EDGSL 82		

RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahney J., Heiton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,  
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
RA Blakeley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smal M.A.,  
RA Schnier A., Schein J.E., Jones S.J.M., Marra M.A.,  
RT "Generation and initial analysis of more than 15,000 full-length  
RT human and mouse cDNA sequences";  
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- TISSUE SPECIFICITY: Specifically expressed in CD34+ hematopoietic  
CC cells.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; AF193766; AA73372.1; -;  
CC EMBL; BC031391; AA31391.1; -;  
CC MIN; 607930; -;  
CC GO; GO:0005615; C:extracellular space; TAS.  
CC GO; GO:0005625; C:soluble fraction; TAS.  
CC GO; GO:0005102; F:receptor binding; TAS.  
CC GO; GO:0007165; P:signal transduction; TAS.  
KW Signal.  
FT SIGNAL 1 19 POTENTIAL.  
FT CHAIN 20 136 CYTOKINE-LIKE PROTEIN C17.  
SQ SEQUENCE 136 AA; 15577 MW; 1CABE1BFC31A3AE3 CRC84;  
  
Query Match 1.5%; Score 6; DB 1; Length 136;  
Best Local Similarity 100.0%; Pred. No. 2.3e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 129 DLVFL 134  
Db |||||  
110 DLVFL 115  
  
RESULT 93  
MSCL\_PSEFL STANDARD; PRT; 136 AA.  
ID MSCL\_PSEFL  
AC O68286;  
DT 15-JUL-1999 (Rel. 38, Created)  
DT 15-JUL-1999 (Rel. 38, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE Large-conductance mechanosensitive channel.  
GN MSLC  
OS Pseudomonas fluorescens.  
OC Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;  
OC Pseudomonadaceae; Pseudomonas.  
OX NCBI\_TaxID=294;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=96294049; PubMed=9632260;  
RA Moe P.C., Slout P., Kung C.;  
RT "Functional and structural conservation in the mechanosensitive";  
RT channel mscL implicates elements crucial for mechanosensation.";  
RL Mol. Microbiol. 28:583-592(1998).  
CC -1- FUNCTION: Channel that opens in response to stretch forces in the  
CC membrane lipid bilayer. May participate in the regulation of  
CC osmotic pressure changes within the cell.  
CC -1- SUBUNIT: Homopentamer (By similarity).  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein. Inner membrane.  
CC -1- SIMILARITY: Belongs to the mscL family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration

RA Cotton M.D., Weidman J.M., Fujii C., Bowman C., Watthey L., Wallin E.,  
RA Hayes W.S., Borodovsky M., Karp P.D., Smith H.O., Fraser C.M.,  
RT "The complete genome sequence of the gastric pathogen Helicobacter  
RT pylori";  
RL Nature 388:539-547(1997).  
CC -1- FUNCTION: Could be a nuclease that resolves Holliday junction  
CC intermediates in genetic recombination.  
CC -1- SUBCELLULAR LOCATION: Cytoplasmic (Potential).  
CC -1- SIMILARITY: Belongs to the YggF\_HRP family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; AE000551; AAD07403.1; -;  
CC PIR; F64561; P64561.  
CC TIGR; HP0334; -;  
CC HAMAP; MF\_00651; -; 1.  
CC InterPro; IPR005227; Cons hypoth250.  
CC InterPro; IPR006641; YggFC.  
CC Pfam; PF03652; UPF0081; 1.  
CC SMART; SM00732; YggFC; 1.  
CC TIGRFAMs; TIGR00250; TIGR00250; 1.  
KW Hydrolase; Nuclease; DNA repair; DNA recombination; Complete proteome.  
SQ SEQUENCE 134 AA; 15256 MW; 516D8C4233B932CE CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 134;  
Best Local Similarity 100.0%; Pred. No. 2.2e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 266 REKNIQ 271  
Db |||||  
45 REKNIQ 50  
  
RESULT 92  
C17\_HUMAN STANDARD; PRT; 136 AA.  
ID C17\_HUMAN  
AC Q9NR1;  
DT 28-FEB-2003 (Rel. 41, Created)  
DT 28-FEB-2003 (Rel. 41, Last sequence update)  
DT 10-OCT-2003 (Rel. 42, Last annotation update)  
DE Cytokine-like protein C17 precursor.  
GN C10RP4.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A., TISSUE SPECIFICITY, AND SUBCELLULAR LOCATION.  
RC TISSUE=Blood;  
RX MEDLINE=20313895; PubMed=10857752;  
RA Liu X., Rapp N., Deans R., Cheng L.;  
RT "Molecular cloning and chromosomal mapping of a candidate cytokine  
RT gene selectively expressed in human CD34+ cells.";  
RL Genomics 65:283-292(2000).  
RN [2]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Colon;  
RX MEDLINE=22388257; PubMed=12477932;  
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,  
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,  
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,



```

CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
-----
CC EMBL; AF029732; AAC38561.1; -.
CC HMAP; MF_00115; -.
CC InterPro; IPR001185; MS_channel.
CC PRINTS; PR01264; MSCHANNEL.
CC ProDom; PDO07253; MS_channel; 1.
CC TIGRPFAMs; TIGR00220; mscl; 1.
CC PROSITE; PS01327; MSCL; 1.
KW Ionic channel; Transmembrane; Inner membrane.
FT DOMAIN 1 15 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 16 42 BY SIMILARITY.
FT DOMAIN 43 73 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 74 95 BY SIMILARITY.
FT DOMAIN 96 136 CYTOPLASMIC (POTENTIAL).
SQ SEQUENCE 136 AA; 14459 MW; 99DACAV16E481095 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 136;
Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 248 NRLKRE 253
Db 99 NRLKRE 104
|||||
-----
RESULT 94
MSCL_PSEAB
ID MSCL_PSEAB STANDARD; PRT; 137 AA.
AC Q9HVH7.
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Large-conductance mechanosensitive channel.
GN MSCL OR PA4614.
OS Pseudomonas aeruginosa.
OC Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
OC Pseudomonadaceae; Pseudomonas.
OX NCBI_TaxID=287;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=ATCC 15692 / PA01;
RX MEDLINE=20437337; PubMed=10984043;
RA Stover C.K., Pham X.-Q.T., Erwin A.L., Mizoguchi S.D., Warren P.,
RA Hickey M.J., Brinkman F.S.L., Hufnagle W.O., Kowalik D.J., Lagrou M.,
RA Garber R.L., Goltry L., Tolentino E., Westbrook-Wadman S., Yuan Y.,
RA Brody L.L., Coulter S.N., Folger K.R., Kas A., Larbig K., Lim R.M.,
RA Smith K.A., Spencer D.H., Wong G.K.-S., Wu Z., Paulsen I.T.,
RA Reizer J., Sailer M.H., Hancock R.E.W., Lory S., Olson M.V.;
RT "Complete genome sequence of Pseudomonas aeruginosa PA01, an
RT opportunistic pathogen.";
RL Nature 406:959-964(2000).
CC -!- FUNCTION: Channel that opens in response to stretch forces in the
CC membrane lipid bilayer. May participate in the regulation of
CC osmotic pressure changes within the cell (By similarity).
CC -!- SUBUNIT: Homopentamer (By similarity).
CC -!- SUBCELLULAR LOCATION: Integral membrane protein. Inner membrane.
CC -!- SIMILARITY: Belongs to the mscl family.
-----
CC This SWISS-PROT entry is copyrighted. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).

```

```

CC EMBL; AE004875; AAG08002.1; -.
CC PIR; F83069; F83069.
CC HAMAP; MF_00115; -.
CC InterPro; IPR001185; MS_channel.
CC Pfam; PF01741; MSCL; 1.
CC PRINTS; PR01264; MSCHANNEL.
CC ProDom; PDO07253; MS_channel; 1.
CC TIGRPFAMs; TIGR00220; mscl; 1.
CC PROSITE; PS01327; MSCL; 1.
KW Ionic channel; Transmembrane; Inner membrane; Complete proteome.
FT DOMAIN 1 15 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 16 42 BY SIMILARITY.
FT DOMAIN 43 74 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 75 96 BY SIMILARITY.
FT DOMAIN 97 137 CYTOPLASMIC (POTENTIAL).
SQ SEQUENCE 137 AA; 14432 MW; FFC0D02A712813B2 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 137;
Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 248 NRLKRE 253
Db 100 NRLKRE 105
|||||
-----
RESULT 95
UVSY_BPT4
ID UVSY_BPT4 STANDARD; PRT; 137 AA.
AC P04537.
DT 13-AUG-1987 (Rel. 05, Created)
DT 01-OCT-1993 (Rel. 27, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Recombination protein uvvY.
GN UVSY.
OS Bacteriophage T4.
OC Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;
OC T4-like viruses.
OX NCBI_TaxID=10685;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=91335767; PubMed=1871975;
RA Grudl M.E., Chen T.C., Gargano S., Storlazzi A., Cascino A.,
RA Mosig G.;
RT "Two bacteriophage T4 base plate genes (25 and 26) and the DNA repair
RT gene uvvY belong to spatially and temporally overlapping
RT transcription units.";
RL Virology 184:359-369(1991).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=88319987; PubMed=3412904;
RA Kobayashi M., Saito H., Takahashi H.;
RT "Confirmation of the reading frame of bacteriophage T4 uvvY gene.";
RN [3]
RP Nucleic Acids Res. 16:7729-7729(1988).
RX SEQUENCE FROM N.A.
RX MEDLINE=86072089; PubMed=3000071;
RA Takahashi H., Kobayashi M., Noguchi T., Saito H.;
RT "Nucleotide sequence of bacteriophage T4 uvvY gene.";
RL Virology 147:349-353(1985).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE=87106763; PubMed=3026891;
RA Grudl M.E., Mosig G.;
RT "Sequence and transcripts of the bacteriophage T4 DNA repair gene
RT uvvY.";
RL Genetics 114:1061-1079(1986).
RN [5]
RP SEQUENCE FROM N.A.
RX MEDLINE=22514363; PubMed=12626685;
RA Miller E.S., Kutter E., Mosig G., Arisaka F., Kunisawa T., Ruger W.;
RT "Bacteriophage T4 genome.";

```



RL Microbiol. Mol. Biol. Rev. 67:86-156(2003).  
CC -!- FUNCTION: This protein is involved in the DNA synthesis and  
CC recombination process.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; M77695; AAA32550.1; -;  
CC EMBL; M11495; AAA32546.1; ALT\_SEQ.  
CC EMBL; X05134; CAA28779.1; -;  
CC EMBL; X04856; CAA28549.1; -;  
CC EMBL; AF158101; AAD42670.2; -;  
CC PIR; J90136; ZXBPT4.  
KW DNA synthesis; DNA recombination.  
FT CONFLICT 113 113 A -> R (IN REF. 1).  
SQ SEQUENCE 137 AA; 15839 MW; 63BB7A96AA7C3B66 CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 137;  
Best Local Similarity 100.0%; Pred. No. 2.3e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 222 LQELK 227  
DB 6 LQELK 11  
|||||  
-----  
RESULT 96  
ATPE SYNPL  
ID ATPE SYNPL STANDARD; PRT; 138 AA.  
AC Q05375;  
DT 01-FEB-1994 (Rel. 28, Created)  
DT 01-FEB-1994 (Rel. 28, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE ATP synthase epsilon chain (EC 3.6.3.14) (ATP synthase F1 sector  
DE epsilon subunit).  
GN ATPC OR ATPF.  
OS Synecococcus sp. (strain PCC 6716).  
OC Bacteria; Cyanobacteria; Chroococcales; Synecococcus.  
OX NCBI\_TaxID=32048;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=93371369; PubMed=8163578;  
RA van Walraven H.S., Lutter R., Walker J.E.;  
RA "Organization and sequences of genes for the subunits of ATP synthase  
RA in the thermophilic cyanobacterium Synecococcus 6716.";  
RL Biochem. J. 294:239-251(1993).  
CC -!- FUNCTION: Produces ATP from ADP in the presence of a proton  
CC gradient across the membrane.  
CC -!- CATALYTIC ACTIVITY: ATP + H(2)O + H(+) (in) = ADP + phosphate +  
CC H(+) (out).  
CC -!- SUBUNIT: F-type ATPases have 2 components, CF(1) - the catalytic  
CC core - and CF(0) - the membrane proton channel. CF(1) has five  
CC subunits: alpha(3), beta(3), gamma(1), delta(1), epsilon(1). CF(0)  
CC has three main subunits: a, b and c.  
CC -!- SIMILARITY: Belongs to the ATPase epsilon chain family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; X70432; CAA9883.1; -;  
CC HSSP; P00832; IBSN.  
CC HAMAP; MF\_00530; -; 1.  
CC InterPro; IPR001469; ATPsynth\_DE.  
CC -----

DR Pfam; PF00401; ATP-synt\_DE; 1.  
DR Pfam; PF02823; ATP-synt\_DE\_N; 1.  
DR ProDom; PD000944; ATPsynt\_DE; 1.  
DR TIGRfam; TIGR01216; ATP\_synt\_eps; 1.  
KW Hydrolase; ATP synthesis; CF(1); Hydrogen ion transport.  
SQ SEQUENCE 138 AA; 14752 MW; 2EC6F20819C9E17A CRC64;  
  
Query Match 1.5%; Score 6; DB 1; Length 138;  
Best Local Similarity 100.0%; Pred. No. 2.3e+02;  
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 260 AQIQAA 265  
DB 114 AQIQAA 119  
|||||  
-----  
RESULT 97  
EXDI VIBCH  
ID EXDI VIBCH STANDARD; PRT; 138 AA.  
AC Q52044; Q9JPZ2;  
DT 15-DEC-1998 (Rel. 37, Created)  
DT 15-DEC-1998 (Rel. 37, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Biopolymer transport exbd1 protein.  
GN EXBD1 OR EXBD OR VCA0912.  
OS Vibrio cholerae.  
OC Bacteria; Proteobacteria; Gammaproteobacteria; Vibrionales;  
OC Vibrionaceae; Vibrio.  
OX NCBI\_TaxID=566;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=Classical CA401;  
RX MEDLINE=98453146; PubMed=9781885;  
RA Occhino D.A., Wyckoff E.E., Henderson D.P., Wrona T.J., Payne S.M.;  
RT "Vibrio cholerae iron transport: haem transport genes are linked to  
RL one of two sets of tonB, exbB, exbD genes.";  
RN Mol. Microbiol. 29:1493-1507(1998).  
[2]  
RP SEQUENCE FROM N.A.  
RX STRAIN=El Tor N16961 / Serotype O1;  
RC MEDLINE=20406833; PubMed=10952301;  
RA Heidelberg J.F., Eisen J.A., Nelson W.C., Clayton R.A., Gwinn M.L.,  
RA Dodson R.J., Haft D.H., Hickey E.K., Peterson J.D., Unayam L.A.,  
RA Gill S.R., Nelson K.E., Read T.D., Tettelin H., Richardson D.,  
RA Ermolaeva M.D., Vamathevan J., Bass S., Qin H., Dragoi I., Sellers P.,  
RA McDonald L., Utterback T., Fleischmann R.D., Nierman W.C., White O.,  
RA Salzberg S.L., Smith H.O., Colwell R.R., Mekalanos J.J., Venter J.C.,  
RA Fraser C.M.;  
RT "DNA sequence of both chromosomes of the cholera pathogen Vibrio  
RT cholerae.";  
RL Nature 406:477-483(2000).  
CC -!- FUNCTION: INVOLVED IN THE TONB-DEPENDENT ENERGY-DEPENDENT  
CC TRANSPORT OF VARIOUS RECEPTOR-BOUND SUBSTRATES (BY SIMILARITY).  
CC -!- SUBUNIT: The accessory proteins exbB and exbD seem to form a  
CC complex with tonB (By similarity).  
CC -!- SUBCELLULAR LOCATION: Type II membrane protein. Inner membrane  
CC (Probable).  
CC -!- SIMILARITY: BELONGS TO THE EXBD / TOLR FAMILY.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
CC the European Bioinformatics Institute. There are no restrictions on its  
CC use by non-profit institutions as long as its content is in no way  
CC modified and this statement is not removed. Usage by and for commercial  
CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>  
CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
CC EMBL; AF016580; AAB94546.1; -;  
CC EMBL; AE004419; AAF96809.1; -;  
CC PIR; D82400; D82400.  
CC TIGR; VCA0912; -;  
CC InterPro; IPR003400; Exbd.  
CC Pfam; PF02472; Exbd; 1.  
CC -----

```
KW Transport; Protein transport; Transmembrane; Inner membrane;
KW Complete proteome.
FT DOMAIN 1 16 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 17 37 POTENTIAL.
FT DOMAIN 38 138 PERIPLASMIC (POTENTIAL).
SQ SEQUENCE 138 AA; 15238 MW; E004184FA9C6A3F3 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 138;
Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 131 VFLILT 136
DB 29 VFLILT 34

RESULT 98
NIKR PYRHO
ID NIKR PYRHO STANDARD; PRT; 138 AA.
AC O58316;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Putative nickel responsive regulator.
GN PH0601.
OS Pyrococcus horikoshii.
OC Archaea; Euryarchaeota; Thermococci; Thermococcales; Thermococcaceae;
OC Pyrococcus.
OX NCBI_TaxID=53953;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=98834137; PubMed=9679194;
RA Kawarabayashi Y., Sawada M., Baba S.-I., Kosugi H., Hosoyama A., Nagai Y.,
RA Yamamoto S., Sekine M., Otsuka K., Otsuka R., Nakazawa H., Takamiya M., Ohfuku Y.,
RA Funahashi T., Tanaka T., Kudo H., Yamazaki J., Kishida N., Oguchi A.,
RA Aoki K.-I., Yoshizawa T., Nakamura Y., Robb F.T., Horikoshi K.,
RA Yasuchi Y., Shizuya H., Kikuchi H.,
RT "Complete sequence and gene organization of the genome of a hyper-
thermophilic archaeobacterium, Pyrococcus horikoshii OT3."
RL DNA Res. 5:55-76(1998).
CC -!- FUNCTION: Transcriptional regulator (Potential).
CC -!- COFACTOR: Binds 1 nickel ion per subunit (By similarity).
CC -!- SIMILARITY: Belongs to the copG/nikR family of transcriptional
regulators.
CC
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
between the Swiss Institute of Bioinformatics and the EMBL outstation -
the European Bioinformatics Institute. There are no restrictions on its
use by non-profit institutions as long as its content is in no way
modified and this statement is not removed. Usage by and for commercial
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
CC
CC EMBL; AF000002; BAA29690.1; -.
CC FIR; E71175; E71175.
CC HAMAP; MF 00476; -; 1.
CC InterPro; IPR002145; HTH_CopG.
CC Pfam; PF01402; HTH 4; 1.
KW Hypothetical protein; Transcription regulation; DNA-binding; Nickel;
Metal-binding; Complete proteome.
FT METAL 78 78 NICKEL (BY SIMILARITY).
FT METAL 89 89 NICKEL (BY SIMILARITY).
FT METAL 91 91 NICKEL (BY SIMILARITY).
FT METAL 97 97 NICKEL (BY SIMILARITY).
SQ SEQUENCE 138 AA; 15806 MW; A4B8715636C019FE CRC64;

Query Match 1.5%; Score 6; DB 1; Length 138;
Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 37 VKGEAK 42

KW Transport; Protein transport; Transmembrane; Inner membrane;
KW Complete proteome.
FT DOMAIN 1 16 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 17 37 POTENTIAL.
FT DOMAIN 38 138 PERIPLASMIC (POTENTIAL).
SQ SEQUENCE 138 AA; 15238 MW; E004184FA9C6A3F3 CRC64;

Query Match 1.5%; Score 6; DB 1; Length 138;
Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 133 LLTTPS 138
DB 124 LLTTPS 129

RESULT 100
YORI CALSR
ID YORI CALSR STANDARD; PRT; 140 AA.
AC P40979;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Hypothetical protein in xylR 5' region (ORF1) (Fragment).
OS Caldicellulosiruptor sp. (strain R58.4)
OC Bacteria; Firmicutes; Clostridia; Clostridiales; Syntrophomonadaceae;
OC Caldicellulosiruptor.
```

```

OX NCBI_TaxID=28238;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=97077616; PubMed=8920183;
RA Dwivedi P.P., Gibbs M.D., Saul D.J., Bergquist P.L.;
RT "Cloning, sequencing and overexpression in Escherichia coli of a
RT xylanase gene, xynA, from the thermophilic bacterium RtAB.4 genus
RT Caldicellulosiruptor.";
RL Appl. Microbiol. Biotechnol. 45:86-93(1996).
CC -!- FUNCTION: MAY PLAY A ROLE IN SUGAR TRANSPORT.
CC -!- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
CC -!- SIMILARITY: Belongs to the binding-protein-dependent transport
CC system permease family. Mafg subfamily.
CC -----
CC This SWISS-PROT entry is copy-right. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; L18965; AAB42041.1; -.
DR PIR; S41785;
DR InterPro; IPR000515; BPD transp.
DR Pfam; PF00528; BPD transp; 1.
DR PROSITE; PS0928; ABC_TM1; 1.
KW Hypothetical protein; Transmembrane; Transport.
FT NON_TER 1
FT TRANSMEM 9 29 POTENTIAL.
FT TRANSMEM 65 85 POTENTIAL.
FT TRANSMEM 115 135 POTENTIAL.
SQ SEQUENCE 140 AA; 15761 MW; FAD18780D92692BF CRC64;

Query Match 1.5%; Score 6; DB 1; Length 140;
Best Local Similarity 100.0%; Pred. No. 2.3e+02;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 134 LITPSI 139
Db 58 LITPSI 63

Search completed: April 16, 2004, 10:19:27
Job time : 31 secs
```

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: April 16, 2004, 10:16:36 ; Search time 21 Seconds

Search time 21 seconds  
(without alignments)  
1873.444 Million cell updates/sec

**Title:** US-10-063-523-22

Perfect score: 40

Sequence: 1 MEGESTSAVLSGFVLGALAF.....TDEEIEKMKGFGEYSRSPTF 409

Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 283366 seqs, 96191526 residues

Word size : 6

Total number of hits satisfying chosen parameters: 1726

Minimum DB seq length: 0

```
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
```

Post-processing: Listing first 500 summaries

Database :

```
Database :
      PLK_78:*
      1:  p1r1:*
```

```
1: p1r1: *
2: p1r2: *
```

```
2: dir3: *  
3:
```

4: pir4: +

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	9	2.2	546	2	A69484	hypothetical prote
2	8	2.0	246	2	AI3522	taurine transport
3	8	2.0	297	2	F87610	hypothetical prote
4	8	2.0	312	2	T40912	probable lectin pr
5	8	2.0	442	2	AG2924	RNA modification
6	8	2.0	442	2	F97698	probable thiophene
7	8	2.0	470	2	T45272	hypothetical prote
8	8	2.0	613	2	T43738	dnak-type molecula
9	8	2.0	613	2	AE1621	class I heat-shock
10	8	2.0	613	2	AI1258	class I heat-shock
11	8	2.0	1226	2	IS1617	kinasin-like prote
12	7	1.7	92	2	D83736	hypothetical prote
13	7	1.7	104	2	S00120	hypothetical prote
14	7	1.7	104	2	AC0044	probable chaperone
15	7	1.7	105	2	AE1046	Suga protein limpo
16	7	1.7	136	2	BE5086	hypothetical prote
17	7	1.7	136	2	AE1379	hypothetical prote
18	7	1.7	140	2	T26693	hypothetical prote
19	7	1.7	153	2	AB2617	nitrogen regulator
20	7	1.7	153	2	B97399	nitrogen regulator
21	7	1.7	154	2	AD3475	protein-Npi-phosph
22	7	1.7	157	2	H70004	conserved hypophet
23	7	1.7	165	2	S64213	hypothetical prote
24	7	1.7	173	2	E90621	NADH dehydrogenase
25	7	1.7	174	2	E90617	NADH dehydrogenase
26	7	1.7	177	2	T37444	probable 20.7K pro
27	7	1.7	182	2	QJ1801	B7R 21.3K protein
28	7	1.7	185	2	T00519	proline-rich prote
29	7	1.7	187	2	T09390	21K protein precur

hypothetical protein  
hypothetical protein  
hypothetical protein  
hypothetical protein  
ATP synthase subunit  
proline/glycine betaine  
conserved hypothetical  
protein  
hypothetical protein  
peptidyl prolyl isomerase  
ABC-2 transporter  
MTN3 homolog [Impo]  
osteopontin precursor  
outer surface protein  
outer surface protein  
outer surface protein  
outer surface protein  
outer surface protein  
outer surface protein  
outer surface protein  
maltose ABC transporter  
ribose operon transcriptional protein  
structural protein  
hypothetical protein  
polygalacturonase  
hypothetical protein  
NADH2 dehydrogenase  
hypothetical protein  
conserved hypothetical  
probable glucose-6-phosphate  
2-keto-3-deoxyglucose  
hypothetical protein  
probable O-antigen  
hypothetical protein  
transcription term factor  
probable exported glutamate symport  
hypothetical protein  
hypothetical protein  
dihydrolipoamide dithiolase  
hypothetical protein  
GcbII protein - yeast  
NADH dehydrogenase  
NADH2 dehydrogenase  
hypothetical protein  
hypothetical protein  
tyrosine 3-monooxygenase  
UDP-N-acetylmuramoyl transferase  
probable pectinesterase  
precursor methylesterase  
ABC transporter, A component  
glutathione-S-transferase  
ATP-binding protein  
hypothetical protein  
hypothetical protein  
sulfite reductase  
penicillin-binding protein  
conserved hypothetical  
asparagine synthetase  
probable long-chain fatty acid oxidoreduc-  
tase  
coenzyme F420-reducing ferredoxin  
hypothetical protein  
hypothetical protein  
hypothetical protein  
SOX-LZ - rainbow trout  
hypothetical protein  
XynA precursor - Rye  
exoribonuclease - V  
exoribonuclease - R



249	6	1.5	166	2	F90835	hypothetical prote	322	6	1.5	209	2	E85981	cell division prot
250	6	1.5	167	1	VKLJVS	trans-regulatory s	323	6	1.5	209	2	AH0425	ribosomal RNA larg
251	6	1.5	167	1	VKLJVA	trans-regulatory s	324	6	1.5	209	2	F84482	hypothetical prote
252	6	1.5	167	1	F45390	trans-regulatory s	325	6	1.5	210	2	A95045	DNA-binding respon
253	6	1.5	167	2	H98225	hypothetical prote	326	6	1.5	210	2	H97914	response regulator
254	6	1.5	167	2	T11897	metal stress-regul	327	6	1.5	210	2	T05298	hypothetical prote
255	6	1.5	168	1	S23323	Na+-transporting A	328	6	1.5	211	2	F75593	DNA-binding respon
256	6	1.5	168	2	T30923	hypothetical prote	329	6	1.5	211	2	T03355	gene el2 prote in -
257	6	1.5	168	2	H85693	unknown protein en	330	6	1.5	211	2	AC3525	hypothetical prote
258	6	1.5	170	2	B82521	hypothetical prote	331	6	1.5	212	2	T13753	NADH2 dehydrogenas
259	6	1.5	170	2	G97106	uncharacterized co	332	6	1.5	212	2	S07552	coat protein - pea
260	6	1.5	171	2	D72090	hypothetical prote	333	6	1.5	213	2	H97177	response regulator
261	6	1.5	171	2	F65332	hypothetical prote	334	6	1.5	213	2	G88538	protein F58F6.7 [i
262	6	1.5	172	2	F69506	probable 2-oxoisov	335	6	1.5	214	2	JC5646	interleukin-1 beta
263	6	1.5	172	2	T04498	AIC2 protein homol	336	6	1.5	214	2	T09535	dnak-type molecula
264	6	1.5	173	2	S18035	pathogenesis-relat	337	6	1.5	217	2	S23536	hypothetical prote
265	6	1.5	173	2	S18034	pathogenesis-relat	338	6	1.5	218	2	B72116	hypothetical prote
266	6	1.5	173	2	A49624	polyprotein - chic	339	6	1.5	218	2	T22261	hypothetical prote
267	6	1.5	176	2	AB1930	phosphoribosylamin	340	6	1.5	219	2	S47082	dnak-type molecula
268	6	1.5	176	2	T29845	hypothetical prote	341	6	1.5	219	2	S47083	dnak-type molecula
269	6	1.5	177	2	T47133	hypothetical prote	342	6	1.5	220	1	RWU28	T-cell surface gly
270	6	1.5	177	2	C65006	hypothetical prote	343	6	1.5	220	2	T51648	probable transcrip
271	6	1.5	179	2	F72652	hypothetical prote	344	6	1.5	220	2	AE2360	hypothetical prote
272	6	1.5	179	2	B82143	conserved hypoteth	345	6	1.5	221	1	S24327	glutathione peroxi
273	6	1.5	179	2	F75860	hypothetical prote	346	6	1.5	221	2	S39878	carr protein - Myx
274	6	1.5	180	2	H64542	hypothetical prote	347	6	1.5	221	2	T15784	hypothetical prote
275	6	1.5	180	2	H71965	hypothetical prote	348	6	1.5	221	2	D84780	hypothetical prote
276	6	1.5	180	2	D90569	hypothetical prote	349	6	1.5	222	2	E71652	hypothetical prote
277	6	1.5	180	2	T47031	hypothetical prote	350	6	1.5	222	2	T44784	regulatory protein
278	6	1.5	180	2	AB0235	probable transcrip	351	6	1.5	223	2	B81378	two-component regu
279	6	1.5	181	2	AG1368	NADH-dependent FMN	352	6	1.5	223	2	S34018	hypothetical prote
280	6	1.5	182	2	D82490	hypothetical prote	353	6	1.5	223	2	A64633	phosphotransacetyl
281	6	1.5	183	2	C64363	TATA-binding trans	354	6	1.5	223	2	B83943	hypothetical prote
282	6	1.5	183	2	D90335	terminal quinol ox	355	6	1.5	224	2	D64454	proteasome beta su
283	6	1.5	183	2	T25711	hypothetical prote	356	6	1.5	224	2	E95223	hypothetical prote
284	6	1.5	184	2	T51655	myb-related transc	357	6	1.5	224	2	T34686	probable integral
285	6	1.5	184	2	AD1127	hypothetical prote	358	6	1.5	224	2	H98087	hypothetical prote
286	6	1.5	185	1	A47196	dual specificity p	359	6	1.5	226	1	NRE33	ribonuclease III (
287	6	1.5	185	2	G82609	conserved hypoteth	360	6	1.5	226	2	A91058	RNase III, ds RNA
288	6	1.5	186	2	B69832	biotin biosynthesi	361	6	1.5	226	2	F85302	ribonuclease III (
289	6	1.5	186	2	S46093	probable membrane	362	6	1.5	226	2	AC0829	ATP synthase F0 ch
290	6	1.5	188	2	S73096	hypothetical prote	363	6	1.5	227	2	F90614	photosystem I chai
291	6	1.5	189	2	S45581	apolipoprotein D -	364	6	1.5	227	2	S04133	response regulator
292	6	1.5	190	2	T37707	hypothetical prote	365	6	1.5	228	2	D96564	probable translati
293	6	1.5	191	2	C40364	hypothetical prote	366	6	1.5	228	2	H72703	probable haloacid
294	6	1.5	192	2	JH0171	visinin - chicken	367	6	1.5	229	2	E75005	aquaporin 2 PA034
295	6	1.5	192	2	C70487	transcription regu	368	6	1.5	229	2	F83141	hypothetical prote
296	6	1.5	193	2	H91249	hypothetical prote	369	6	1.5	229	2	H75205	probable DNA repai
297	6	1.5	194	2	T17381	vrla protein - Dic	370	6	1.5	230	2	A96836	hypothetical prote
298	6	1.5	196	2	AI1361	probable scaffoldi	371	6	1.5	230	2	A75260	hypothetical prote
299	6	1.5	196	2	AC2307	hypothetical prote	372	6	1.5	232	2	D71157	probable haloacid
300	6	1.5	197	2	B83768	hypothetical prote	373	6	1.5	232	2	H84028	DNA repair protein
301	6	1.5	197	2	S03662	nitrilase homolog	374	6	1.5	232	2	AF3406	hypothetical expor
302	6	1.5	199	2	S50363	probable CDP-alcoh	375	6	1.5	233	2	AB0273	probable membrane
303	6	1.5	200	2	AC0343	trypsin-like prote	376	6	1.5	233	2	T25295	hypothetical prote
304	6	1.5	200	2	H85042	hypothetical prote	377	6	1.5	235	2	T22826	hypothetical prote
305	6	1.5	200	2	D75059	hypothetical prote	378	6	1.5	235	2	C87244	probable TetR-fami
306	6	1.5	200	2	B97001	transcription regu	379	6	1.5	236	2	F75375	nodulin 21-related
307	6	1.5	201	1	QBEP18	UL92 protein - hum	380	6	1.5	237	2	D95938	hypothetical membr
308	6	1.5	201	2	S62757	NADH2 dehydrogenas	381	6	1.5	238	2	F71723	ribosomal protein
309	6	1.5	201	2	T44594	alcaligin synthasi	382	6	1.5	238	2	T35088	probable membrane
310	6	1.5	202	2	G85439	cold acclimation p	383	6	1.5	239	2	F75111	hypothetical prote
311	6	1.5	205	2	B95285	conserved hypoteth	384	6	1.5	240	1	VCWGN4	coat protein - nar
312	6	1.5	205	2	A85506	GMP kinase [import	385	6	1.5	241	2	AB1998	hypothetical prote
313	6	1.5	205	2	F72117	guanylate kinase C	386	6	1.5	242	2	AB3252	arabinose phosphat
314	6	1.5	206	2	S38626	glutathione transp	387	6	1.5	242	2	B81197	pyridoxal phosphate
315	6	1.5	206	2	A55412	lymphocyte phospho	388	6	1.5	242	2	H81833	pyridoxal phosphate
316	6	1.5	208	1	GXBPT4	baseplate protein	389	6	1.5	242	2	AB6189	protein T25N20.7 [
317	6	1.5	208	2	AH0902	cell division prot	390	6	1.5	243	2	C72776	hypothetical prote
318	6	1.5	208	2	T34512	hypothetical prote	391	6	1.5	244	2	A87633	hypothetical prote
319	6	1.5	208	2	T51775	3-hydroxybutyryl-C	392	6	1.5	244	2	JN0487	acetate decar
320	6	1.5	209	2	S35108	23S rRNA methyltra	393	6	1.5	244	2	B71022	hypothetical prote
321	6	1.5	209	2	B91136	cell division prot	394	6	1.5	245	2	D87612	3-deoxy-manno-octu

395 6 1.5 245 2 B70480 ribosomal protein  
396 6 1.5 247 2 C71722 hypothetical prote  
397 6 1.5 249 2 G97110 ATPase component o  
398 6 1.5 250 2 F72247 methionine aminope  
399 6 1.5 251 2 D69470 conserved hypotet  
400 6 1.5 252 2 H65044 conserved hypotet  
401 6 1.5 253 2 T22839 C7021 hypothetical  
402 6 1.5 254 2 G98850 hypothetical prote  
403 6 1.5 255 2 A55183 triosephosphate is  
404 6 1.5 256 2 S26020 GS2 protein - huma  
405 6 1.5 257 2 S26032 cytochrome-c oxida  
406 6 1.5 258 2 S26032 cytochrome-c oxida  
407 6 1.5 259 2 S26032 cytochrome-c oxida  
408 6 1.5 260 2 T12333 Hs-transferrin tw  
409 6 1.5 261 2 T12333 PMS3 homolog mma  
410 6 1.5 262 2 C98027 hypothetical prote  
411 6 1.5 263 2 A43692 TI protein - rabbi  
412 6 1.5 264 2 G48824 hypothetical prote  
413 6 1.5 265 2 T12386 NADH2 dehydrogenas  
414 6 1.5 266 2 C81008 methionine aminope  
415 6 1.5 267 2 E82029 methionyl aminopep  
416 6 1.5 268 2 A70359 hydroxynase expres  
417 6 1.5 269 2 C70708 hypothetical prote  
418 6 1.5 270 2 A69476 conserved hypotet  
419 6 1.5 271 2 T12388 NADH2 dehydrogenas  
420 6 1.5 272 2 T12394 NADH2 dehydrogenas  
421 6 1.5 273 2 T12395 NADH2 dehydrogenas  
422 6 1.5 274 2 T01145 probable acetone-c  
423 6 1.5 275 2 S47724 hypothetical 29.5K  
424 6 1.5 276 2 S21935 probable MAS-box  
425 6 1.5 277 2 T09603 MADS-box protein 3  
426 6 1.5 278 2 A70676 hypothetical prote  
427 6 1.5 279 2 D95193 ylmH protein [impo  
428 6 1.5 280 2 T46138 myb-like protein -  
429 6 1.5 281 2 B96358 F12K8.16 protein -  
430 6 1.5 282 2 A82956 probable beta-lact  
431 6 1.5 283 2 A82956 ATP-binding protei  
432 6 1.5 284 2 H64086 glycerol facilitat  
433 6 1.5 285 2 E95119 hypothetical prote  
434 6 1.5 286 2 B97989 hypothetical prote  
435 6 1.5 287 2 S64938 hypothetical prote  
436 6 1.5 288 2 C84365 electron transfer  
437 6 1.5 289 2 A81229 glutamate racemase  
438 6 1.5 290 2 G83760 pyrroline-5-carbox  
439 6 1.5 291 2 S09672 kafirin precursor  
440 6 1.5 292 2 T33911 hypothetical prote  
441 6 1.5 293 2 S71200 agamouse-like prote  
442 6 1.5 294 2 I52726 microtubule-associ  
443 6 1.5 295 2 S04124 kafirin precursor  
444 6 1.5 296 2 T36001 probable integral  
445 6 1.5 297 2 S20520 chlorophyll a/b-bi  
446 6 1.5 298 2 G96686 hypothetical prote  
447 6 1.5 299 2 G89929 50S ribosomal prot  
448 6 1.5 300 2 B84861 F1417.29 protein  
449 6 1.5 301 2 A86280 ureb protein - Pro  
450 6 1.5 302 2 A43719 hypothetical prote  
451 6 1.5 303 2 H71690 hypothetical prote  
452 6 1.5 304 2 T12552 hypothetical prote  
453 6 1.5 305 2 A71653 hypothetical prote  
454 6 1.5 306 2 B96996 hypothetical prote  
455 6 1.5 307 2 B82243 hypothetical prote  
456 6 1.5 308 2 B75007 probable translati  
457 6 1.5 309 2 G97783 hypothetical prote  
458 6 1.5 310 2 C43670 integral membrane  
459 6 1.5 311 2 A47090 urease-associated  
460 6 1.5 312 2 D69003 biopolymer transpo  
461 6 1.5 313 2 H64125 modb protein homol  
462 6 1.5 314 2 T22291 hypothetical prote  
463 6 1.5 315 2 E70440 deoxyribonuclease  
464 6 1.5 316 2 T07303 cell division inhi  
465 6 1.5 317 2 T35000 probable protein a  
466 6 1.5 318 2 S25610 dihydropterate sy  
467 6 1.5 319 2 A99060 conserved hypotet

468 6 1.5 284 2 A55455 steroidogenic acut  
469 6 1.5 284 2 S0250 mab-18 protein (tr  
470 6 1.5 284 2 E83557 probable transcrip  
471 6 1.5 284 2 ACO331 probable membrane  
472 6 1.5 285 2 B71194 probable integrase  
473 6 1.5 285 2 S76841 hypothetical prote  
474 6 1.5 285 2 A84494 envelope-like prot  
475 6 1.5 286 2 F69801 epoxide hydrolase  
476 6 1.5 286 2 S76741 sulfate transport  
477 6 1.5 286 2 A75153 integrase/recombin  
478 6 1.5 286 2 E69516 hypothetical prote  
479 6 1.5 287 2 T22324 hypothetical prote  
480 6 1.5 289 2 A81846 sulfate transport  
481 6 1.5 289 2 B89991 truncated beta-hem  
482 6 1.5 289 2 S64254 hypothetical prote  
483 6 1.5 290 2 H64374 transcription acti  
484 6 1.5 290 2 F97198 type II restrictio  
485 6 1.5 291 2 T30267 oxygen-independent  
486 6 1.5 292 2 F71901 sugar transport pr  
487 6 1.5 292 2 E64614 beta-alanine synth  
488 6 1.5 292 2 S77139 hypothetical prote  
489 6 1.5 292 2 S73692 probable GTPase/GP  
490 6 1.5 292 2 G69356 L-malate dehydroge  
491 6 1.5 294 2 G83962 hypothetical prote  
492 6 1.5 294 2 B83964 hypothetical prote  
493 6 1.5 295 2 S52791 aryl sulfotransfer  
494 6 1.5 295 2 JCS249 aryl sulfotransfer  
495 6 1.5 295 2 G01843 aryl sulfotransfer  
496 6 1.5 295 2 S34544 hypothetical prote  
497 6 1.5 295 2 T22039 hypothetical prote  
498 6 1.5 295 2 T23379 hypothetical prote  
499 6 1.5 296 2 H83988 transcription regu

ALIGNMENTS

RESULT 1

A69484  
hypothetical protein AF1874 - Archaeoglobus fulgidus  
C;Species: Archaeoglobus fulgidus  
C;Date: 05-Dec-1997 #sequence\_revision 05-Dec-1997 #text\_change 17-Nov-2000  
R;Accession: A69484  
R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dodso  
.; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F  
Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weidman, J.F.; McDonald, L.  
Nature 390, 364-370, 1997  
A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, S  
Smith, H.O.; Woese, C.R.; Venter, J.C.  
A;Title: The complete genome sequence of the hyperthermophilic, sulfate-reducing archae  
A;Reference number: A69250; MUID:98049343; PMID:9389475  
A;Accession: A69484  
A;Status: preliminary; nucleic acid sequence not shown; translation not shown  
A;Molecule type: DNA  
A;Residues: 1-546 <KLE>  
A;Cross-references: GB:AE000973; GB:AE000782; NID:g2689296; PIDN:AB89382.1; PID:g26486  
C;Superfamily: Pyrococcus horikoshii probable helicase PH0917

Query Match 2.2%; Score 9; DB 2; Length 546;  
Best Local Similarity 100.0%; Pred. No. 1.4;  
Matches 9; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 221 SLQELKSI 229  
Db 62 SLQELKSI 70

RESULT 2

A13522  
tauxine transport system permease protein tauC [imported] - Brucella melitensis (strain  
C;Species: Brucella melitensis  
C;Date: 01-Feb-2002 #sequence\_revision 01-Feb-2002 #text\_change 15-Feb-2002

C;Accession: AJ3522  
 R;DelVecchio, V.G.; Kaputal, R.J.; Patra, G.; Mujer, C.; Los, T.; Ivanova,  
 ; Mazur, M.; Goldsman, E.; Selkov, E.; Elzer, P.H.; Hagius, S.; O'Callaghan, D.; Letess  
 Proc. Natl. Acad. Sci. U.S.A. 99, 443-448, 2002  
 A;Title: The genome sequence of the facultative intracellular pathogen *Bruceella melitensis*  
 A;Reference number: AD3252; PMID:11756688  
 A;Accession: AJ3522  
 A;Status: preliminary  
 A;Molecule type: DNA  
 A;Residues: 1-246 <KUR>  
 A;Cross-references: GB:AE008918; PIDN:AAU53348.1; PID:gl7984237; GSPDB:GN00191  
 A;Experimental source: strain 16M  
 C;Genetics:  
 A;Gene: BME110107  
 A;Map position: II  
 C;Superfamily: Synecococcus nitrate transport protein nrtB

Query Match 2.0%; Score 8; DB 2; Length 246;  
 Best Local Similarity 100.0%; Pred. No. 6.9;  
 Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 9 VLSGFVLG 16  
 |||||  
 DB 63 VLSGFVLG 70

RESULT 3  
 P97610  
 hypothetical protein CC2920 [imported] - Caulobacter crescentus  
 C;Species: Caulobacter crescentus  
 C;Date: 20-Apr-2001 #sequence\_revision 20-Apr-2001 #text\_change 20-Apr-2001  
 C;Accession: F87610  
 R;Nierman, W.C.; Feldblyum, T.V.; Paulsen, I.T.; Nelson, K.E.; Eisen, J.; Heidelberg, J.  
 B.; Laub, M.T.; DeBoy, R.T.; Dodson, R.J.; Durkin, A.S.; Gwinn, M.L.; Hatt, D.H.; Kolon  
 n. J.; Ermolaeva, M.; White, O.; Salzberg, S.L.; Shapiro, L.; Venter, J.C.; Fraser, C.M.  
 Proc. Natl. Acad. Sci. U.S.A. 98, 4136-4141, 2001  
 A;Title: Complete genome sequence of *Caulobacter crescentus*.  
 A;Reference number: AB7249; PMID:21173698; PMID:11259647  
 A;Accession: F87610  
 A;Status: preliminary  
 A;Molecule type: DNA  
 A;Residues: 1-297 <STO>  
 A;Cross-references: GB:AE005673; NID:gl3424542; PIDN:AAK24882.1; GSPDB:GN00148  
 C;Genetics:  
 A;Gene: CC2920

Query Match 2.0%; Score 8; DB 2; Length 297;  
 Best Local Similarity 100.0%; Pred. No. 8.2;  
 Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 33 LLGEVKGE 40  
 |||||  
 DB 267 LLGEVKGE 274

RESULT 4  
 T40912  
 probable lectin precursor - fission yeast (*Schizosaccharomyces pombe*)  
 C;Species: Schizosaccharomyces pombe  
 C;Date: 03-Dec-1999 #sequence\_revision 03-Dec-1999 #text\_change 03-Dec-1999  
 C;Accession: T40912  
 R;Murphy, L.; Harris, D.; Lyne, M.; Rajandream, M.A.; Barrell, B.G.  
 submitted to the EMBL Data Library, December 1998  
 A;Reference number: Z21956  
 A;Accession: T40912  
 A;Status: preliminary; translated from GB/EMBL/DBJ  
 A;Molecule type: DNA  
 A;Residues: 1-312 <MUR>  
 A;Cross-references: EMBL:AL034490; PIDN:CAA22477.1; GSPDB:GN00068; SPDB:SPCC126.08C  
 A;Experimental source: strain 972h; cosmid c126  
 C;Genetics:  
 A;Gene: SPDB:SPCC126.08C  
 A;Map position: 3

Query Match 2.0%; Score 8; DB 2; Length 312;  
 Best Local Similarity 100.0%; Pred. No. 8.6;  
 Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 12 GFVLGALA 19  
 |||||  
 DB 15 GFVLGALA 22

RESULT 5  
 AG2924  
 tRNA modification GTPase [imported] - Agrobacterium tumefaciens (strain C58, Dupont)  
 C;Species: Agrobacterium tumefaciens  
 C;Date: 11-Jan-2002 #sequence\_revision 11-Jan-2002 #text\_change 18-Nov-2002  
 C;Accession: AG2924  
 R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo,  
 erage, G.; Gillet, W.; Grant, C.; Guenther, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell  
 ; Karp, P.; Romero, P.; Zhang, S.  
 Science 294, 2317-2323, 2001  
 A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,  
 ster, E.W.  
 A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.  
 A;Reference number: AB2577; PMID:21608550; PMID:11743193  
 A;Accession: AG2924  
 A;Status: preliminary  
 A;Molecule type: DNA  
 A;Residues: 1-442 <KUR>  
 A;Cross-references: GB:AE008698; PIDN:AAU43813.1; PID:gl7741353; GSPDB:GN00186  
 A;Experimental source: strain C58 (Dupont)  
 C;Genetics:  
 A;Gene: thdF  
 A;Map position: circular chromosome  
 C;Superfamily: thiophen / furan oxidation protein; translation elongation factor Tu hom

Query Match 2.0%; Score 8; DB 2; Length 442;  
 Best Local Similarity 100.0%; Pred. No. 12;  
 Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEKR 257  
 |||||  
 DB 361 LKREIEKR 368

RESULT 6  
 F97698  
 probable thiophen and furan oxidation protein thdF [imported] - Agrobacterium tumefaci  
 C;Species: Agrobacterium tumefaciens  
 C;Date: 30-Sep-2001 #sequence\_revision 30-Sep-2001 #text\_change 18-Nov-2002  
 C;Accession: F97698  
 R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Quorollo, B.; Goldman  
 A.; Liu, F.; Wollam, C.; Allinger, M.; Dougherty, D.; Scott, C.; Lappas, C.; Markelz, B.  
 Science 294, 2323-2328, 2001  
 A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tu  
 A;Reference number: A97359; PMID:21608551; PMID:11743194  
 A;Accession: F97698  
 A;Status: preliminary  
 A;Molecule type: DNA  
 A;Residues: 1-442 <KUR>  
 A;Cross-references: GB:AE007869; PIDN:AAK88543.1; PID:gl5158062; GSPDB:GN00169  
 C;Genetics:  
 A;Gene: AGR C 5135  
 A;Map position: circular chromosome  
 C;Superfamily: thiophen / furan oxidation protein; translation elongation factor Tu hom

Query Match 2.0%; Score 8; DB 2; Length 442;  
 Best Local Similarity 100.0%; Pred. No. 12;  
 Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEKR 257  
 |||||  
 DB 361 LKREIEKR 368



RESULT 7  
T49272  
Hypothetical protein T21J18.30 - Arabidopsis thaliana  
C:Species: Arabidopsis thaliana (mouse-ear cress)  
C>Date: 02-Jun-2000 #sequence\_revision 02-Jun-2000 #text\_change 02-Jun-2000  
C:Accession: T49272  
R:Pieger, M.; Gabel, C.; Mueller-Auer, S.; Schaefer, M.; Zipp, M.; Mewes, H.W.; Rudd, S.  
submitted to the Protein Sequence Database, April 2000  
A:Reference number: Z25021  
A:Accession: T49272  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-470 <RIF>  
A:Cross-references: ENBL:ALJ32963; GSPDB:GN00061; ATSP:T21J18.30  
A:Experimental source: cultivar Columbia; BAC clone T21J18  
C:Genetics:  
A:Gene: ATSP:T21J18.30  
A:Map position: 3  
A:introns: 37/3; 92/3; 191/3; 269/3

Query Match 2.0%; Score 8; DB 2; Length 470;  
Best Local Similarity 100.0%; Pred. No. 12; Mismatches 0; Indels 0; Gaps 0;  
Matches 8; Conservative 0

QY 129 DLVFLLLT 136  
|||  
Db 93 DLVFLLLT 100

RESULT 8  
T43738  
dnaK-type molecular chaperone dnaK [imported] - Listeria monocytogenes  
C:Species: Listeria monocytogenes  
C>Date: 21-Jan-2000 #sequence\_revision 21-Jan-2000 #text\_change 18-Feb-2000  
C:Accession: T43738  
R:Hanawa, T.; Kai, M.; Kamiya, S.; Yamamoto, T.  
submitted to the EMBL Data Library, February 1999  
A:Description: Cloning, sequencing, and transcriptional analysis of the dnaK heat shock  
A:Reference number: Z22656  
A:Accession: T43738  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-613 <HAN>  
A:Cross-references: ENBL:AB023064; PIDN:BAA82789.1  
A:Experimental source: strain 10403S  
C:Genetics:  
A:Note: dnaK  
C:Superfamily: heat shock protein 70  
C:Keywords: molecular chaperone; stress-induced protein

Query Match 2.0%; Score 8; DB 2; Length 613;  
Best Local Similarity 100.0%; Pred. No. 16; Mismatches 0; Indels 0; Gaps 0;  
Matches 8; Conservative 0

QY 390 TDEIEIKM 397  
|||  
Db 478 TDEIEIKM 485

RESULT 9  
AE1621  
class I heat-shock protein (molecular chaperone) DnaK [imported] - Listeria innocua (str  
C:Species: Listeria innocua  
C>Date: 27-Nov-2001 #sequence\_revision 27-Nov-2001 #text\_change 14-Dec-2001  
R:Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker  
.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.  
D.; Jones, L.M.; Karst, U.  
Science 294, 849-852, 2001  
A:Authors: Kref, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Ma  
ok, C.; Schluter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehlend,  
A:Title: Comparative genomics of Listeria species.

A:Reference number: AB1077; MUID:21537279; PMID:11679669  
A:Accession: AE1621  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-613 <GLA>  
A:Cross-references: GB:AL592022; PIDN:CAC96741.1; PID:G16413983; GSPDB:GN00178  
A:Experimental source: strain Clp11262  
C:Genetics:  
A:Gene: dnaK  
C:Superfamily: heat shock protein 70

Query Match 2.0%; Score 8; DB 2; Length 613;  
Best Local Similarity 100.0%; Pred. No. 16; Mismatches 0; Indels 0; Gaps 0;  
Matches 8; Conservative 0

QY 390 TDEIEIKM 397  
|||  
Db 478 TDEIEIKM 485

RESULT 10  
AI1258  
class I heat-shock protein (molecular chaperone) DnaK [imported] - Listeria monocytogen  
C:Species: Listeria monocytogenes  
C>Date: 27-Nov-2001 #sequence\_revision 27-Nov-2001 #text\_change 14-Dec-2001  
C:Accession: AI1258  
R:Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker  
.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.  
D.; Jones, L.M.; Karst, U.  
Science 294, 849-852, 2001  
A:Authors: Kref, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; M  
ok, C.; Schluter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehlend,  
A:Title: Comparative genomics of Listeria species.  
A:Reference number: AB1077; MUID:21537279; PMID:11679669  
A:Accession: AI1258  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-613 <GLA>  
A:Cross-references: GB:NC\_003210; PIDN:CAC99551.1; PID:G16410902; GSPDB:GN00177  
A:Experimental source: strain EGB-e  
C:Genetics:  
A:Gene: dnaK  
C:Superfamily: heat shock protein 70

Query Match 2.0%; Score 8; DB 2; Length 613;  
Best Local Similarity 100.0%; Pred. No. 16; Mismatches 0; Indels 0; Gaps 0;  
Matches 8; Conservative 0

QY 390 TDEIEIKM 397  
|||  
Db 478 TDEIEIKM 485

RESULT 11  
I51617  
kinesin-like protein 1 - African clawed frog  
C:Species: Xenopus laevis (African clawed frog)  
C>Date: 13-Sep-1996 #sequence\_revision 13-Sep-1996 #text\_change 02-Feb-2001  
C:Accession: I51617; A48835; S48837  
R:Vernos, I.; Raats, J.; Hirano, T.; Heasman, J.; Karsenti, E.; Wylie, C.  
Cell 81, 117-127, 1995  
A:Title: Xklp1, a chromosomal Xenopus kinesin-like protein essential for spindle organi  
A:Reference number: A56221; MUID:95236444; PMID:7720067  
A:Accession: I51617  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: mRNA  
A:Residues: 1-1226 <VER>  
A:Cross-references: EMBL:X82012; NID:G562792; PIDN:CAA57539.1; PID:G562793  
Dev. Biol. 157, 232-239, 1993  
R:Vernos, I.; Heasman, J.; Wylie, C.  
A:Title: Multiple kinesin-like transcripts in Xenopus oocytes.  
A:Reference number: A48835; MUID:93246065; PMID:8482413  
A:Accession: A48835

A>Status: preliminary; not compared with conceptual translation  
 A:Molecule type: mRNA  
 A:Residues: 9-162, 'L', 164-338 <VE2>  
 A:Experimental source: oocyte  
 A>Note: sequence extracted from NCBI backbone (NCBIP:130975)  
 C:Genetics:

A:Gene: klpi  
 C:Superfamily: unassigned kinesin-related proteins; kinesin motor domain homology  
 C:Keywords: ATP; nucleotide binding; P-loop  
 F:9-343/Domain: kinesin motor domain homology <XOOT>  
 F:87-94/Region: nucleotide-binding motif A (P-loop)

Query Match 2.0%; Score 8; DB 2; Length 1226;  
 Best Local Similarity 100.0%; Pred. No. 30;  
 Matches 8; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 391 DEEIEKMK 398  
 |||||  
 Db 974 DEEIEKMK 981

## RESULT 12

D83736 hypothetical protein BH0692 [imported] - Bacillus halodurans (strain C-125)

C:Species: Bacillus halodurans  
 C:Date: 01-Dec-2000 #sequence\_revision 01-Dec-2000 #text\_change 15-Jun-2001  
 C:Accession: D83736  
 R:Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fujii, F.; Hira  
 Nucleic Acids Res. 28, 4317-4331, 2000  
 A:Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and  
 A:Reference number: A83650; MUID:20512582; PMID:11058132  
 A:Accession: D83736  
 A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-92 <STO>  
 A:Cross-references: GB:AP001509; GB:BA000004; NID:gl0173176; PIDN:BA04411.1; GSPDB:GN00  
 A:Experimental source: strain C-125  
 C:Genetics:  
 A:Gene: BH0692

Query Match 1.7%; Score 7; DB 2; Length 92;  
 Best Local Similarity 100.0%; Pred. No. 30;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 114 ERLHKN 120  
 |||||  
 Db 16 ERLHKN 22

## RESULT 13

S00120 hypothetical protein D - proteus vulgaris

C:Species: Proteus vulgaris  
 C:Date: 31-Dec-1990 #sequence\_revision 31-Dec-1990 #text\_change 29-Sep-1999  
 C:Accession: S00120  
 R:Cole, S.T.  
 Eur. J. Biochem. 167, 481-488, 1987

A:Title: Nucleotide sequence and comparative analysis of the frd operon encoding the fun  
 d-linked ampC cephalosporinase gene.

A:Reference number: S00107; MUID:88004470; PMID:3308458

A:Accession: S00120

A:Molecule type: DNA

A:Residues: 1-104 <COL>

A:Cross-references: EMBL:X06151; NID:G45907; PIDN:CAA29512.1; PID:G45911

C:Superfamily: sugE protein

C:Keywords: transmembrane protein

F:2-20/Domain: transmembrane #status predicted <TM1>

F:29-48/Domain: transmembrane #status predicted <TM2>

F:57-78/Domain: transmembrane #status predicted <TM3>

Query Match 1.7%; Score 7; DB 2; Length 104;  
 Best Local Similarity 100.0%; Pred. No. 33;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 135 LTPSIIT 141  
 |||||  
 Db 29 LTPSIIT 35

## RESULT 14

AC0044

probable chaperone sugE [imported] - Yersinia pestis (strain CO92)

C:Species: Yersinia pestis

C:Date: 02-Nov-2001 #sequence\_revision 02-Nov-2001 #text\_change 09-Nov-2001

C:Accession: AC0044

R:Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B  
 deno-Farraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;  
 il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrell,  
 Nature 413, 523-527, 2001

A:Title: Genome sequence of Yersinia pestis, the causative agent of plague.

A:Reference number: AB0001; MUID:21470413; PMID:11586360

A:Accession: AC0044

A>Status: preliminary

A:Molecule type: DNA

A:Residues: 1-104 <KUR>

A:Cross-references: GB:AL590842; PIDN:CAC89214.1; PID:gl5978453; GSPDB:GN00175

C:Genetics:

A:Gene: sugE

C:Superfamily: sugE protein

Query Match 1.7%; Score 7; DB 2; Length 104;  
 Best Local Similarity 100.0%; Pred. No. 33;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 135 LTPSIIT 141  
 |||||  
 Db 29 LTPSIIT 35

## RESULT 15

AE1046

SugE protein [imported] - Salmonella enterica subsp. enterica serovar Typhi (strain CTI

C:Species: Salmonella enterica subsp. enterica serovar Typhi

A>Note: this species has also been called Salmonella typhi

C:Date: 09-Nov-2001 #sequence\_revision 09-Nov-2001 #text\_change 18-Nov-2002

C:Accession: AE1046

R:Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher  
 th, T.; Conner, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar  
 S.; Moulie, S.; O'Gaora, P.  
 Nature 413, 848-852, 2001

A:Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.

A:Title: Complete genome sequence of a multiple drug resistant Salmonella enterica sero

A:Reference number: AB0502; MUID:21534947; PMID:11677608

A:Accession: AE1046

A>Status: preliminary

A:Molecule type: DNA

A:Residues: 1-105 <PAR>

A:Cross-references: GB:AL513382; PIDN:CAD06818.1; PID:gl6505468; GSPDB:GN00176

C:Genetics:

A:Gene: sugE

C:Superfamily: sugE protein

Query Match 1.7%; Score 7; DB 2; Length 105;  
 Best Local Similarity 100.0%; Pred. No. 33;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 135 LTPSIIT 141  
 |||||  
 Db 29 LTPSIIT 35

## RESULT 16

B75086

hypothetical protein BAB0720 - Pyrococcus abyssi (strain Orsay)

C:Species: Pyrococcus abyssi

C:Date: 20-Aug-1999 #sequence\_revision 20-Aug-1999 #text\_change 20-Aug-1999

C;Accession: B75086  
R;anonymous, Genoscope  
submitted to the EMBL Data Library, July 1999  
A;Description: Pyrococcus abyssi genome sequence: insights into archaeal chromosome structure  
A;Reference number: A75001  
A;Accession: B75086  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-136 <KAW>  
A;Cross-references: GB:AJ248286; GB:AL096836; NID:G5458366; PIDN:CAB49991.1; PID:el51588  
A;Experimental source: strain Orey  
C;Genetics:  
A;Gene: PAB0720

Query Match 1.7%; Score 7; DB 2; Length 136;  
Best Local Similarity 100.0%; Pred. No. 42;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 392 EEIEKMK 398  
|||||  
Db 98 EEIEKMK 104

RESULT 17  
AE1379  
hypothetical protein lmc2437 [imported] - Listeria monocytogenes (strain EGD-e)  
C;Species: Listeria monocytogenes  
C;Date: 27-Nov-2001 #sequence\_revision 27-Nov-2001 #text\_change 27-Nov-2001  
C;Accession: AE1379  
R;Glasner, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloeker, D.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Duseurget, O.; Entian, K.D.; Fsihi, H.; D.; Jones, L.M.; Karst, U.  
Science 294, 849-852, 2001  
A;Authors: Krest, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Mak, C.; Schluster, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehlund, A.; Title: Comparative genomics of Listeria species.  
A;Reference number: AE1077; MUID:21537279; PMID:11679669  
A;Accession: AE1379  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-136 <GLA>  
A;Cross-references: GB:NC 003210; PIDN:CAD00515.1; PID:gi6411925; GSPDB:GN00177  
A;Experimental source: strain EGD-e  
C;Genetics:  
A;Gene: lmo2437

Query Match 1.7%; Score 7; DB 2; Length 136;  
Best Local Similarity 100.0%; Pred. No. 42;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 238 QAVDKLV 244  
|||||  
Db 86 QAVDKLV 92

RESULT 18  
T26693  
hypothetical protein Y38H6C.3 - Caenorhabditis elegans  
C;Species: Caenorhabditis elegans  
C;Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 15-Oct-1999  
C;Accession: T26693  
R;White, S.  
submitted to the EMBL Data Library, September 1998  
A;Reference number: Z20255  
A;Accession: T26693  
A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: DNA  
A;Residues: 1-140 <WIL>  
A;Cross-references: EMBL:AL031630; PIDN:CAA20983.1; GSPDB:GN00023; CESP:Y38H6C.3  
A;Experimental source: clone Y38H6C  
C;Genetics:  
A;Gene: CESP:Y38H6C.3  
A;Map position: 5

Query Match 1.7%; Score 7; DB 2; Length 136;  
Best Local Similarity 100.0%; Pred. No. 42;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 238 QAVDKLV 244  
|||||  
Db 86 QAVDKLV 92

RESULT 19  
AE2617  
nitrogen regulatory IIA protein ptsN [imported] - Agrobacterium tumefaciens (strain C58)  
C;Species: Agrobacterium tumefaciens  
C;Date: 11-Jan-2002 #sequence\_revision 11-Jan-2002 #text\_change 18-Nov-2002  
C;Accession: AB2617  
R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, J.; Erage, G.; Gillet, W.; Grant, C.; Guenther, D.; Kutyavin, T.; Levy, R.; Li, M.; McGlell, Karp, P.; Romero, P.; Zhang, S.  
Science 294, 2317-2323, 2001  
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm, ster, E.W.  
A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.  
A;Reference number: AB2577; MUID:21608550; PMID:11743193  
A;Accession: AB2617  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-153 <KUR>  
A;Cross-references: GB:AB008688; PIDN:AAL41352.1; PID:gl17738666; GSPDB:GN00186  
A;Experimental source: strain C58 (Dupont)  
C;Genetics:  
A;Gene: ptsN  
A;Map position: circular chromosome  
C;Superfamily: phosphotransferase system enzyme II; phosphotransferase system mannitol-

Query Match 1.7%; Score 7; DB 2; Length 153;  
Best Local Similarity 100.0%; Pred. No. 47;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 129 DLVFLLL 135  
|||||  
Db 97 DLVFLLL 103

RESULT 20  
B97399  
nitrogen regulatory IIA protein (enzyme IIA-ntn) (phosphotransferase enzyme II, a compo  
C;Species: Agrobacterium tumefaciens  
C;Date: 30-Sep-2001 #sequence\_revision 30-Sep-2001 #text\_change 18-Nov-2002  
C;Accession: B97399  
R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Quorllo, B.; Goldman A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.  
Science 294, 2323-2328, 2001  
A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tu  
A;Reference number: A97359; MUID:21608551; PMID:11743194  
A;Accession: B97399  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-153 <KUR>  
A;Cross-references: GB:AE007869; PIDN:AAK86147.1; PID:gl5155236; GSPDB:GN00169  
C;Genetics:  
A;Gene: AGR\_C\_576  
A;Map position: circular chromosome  
C;Superfamily: phosphotransferase system enzyme II; phosphotransferase system mannitol-

Query Match 1.7%; Score 7; DB 2; Length 153;  
Best Local Similarity 100.0%; Pred. No. 47;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 129 DLVFLLL 135  
|||||  
Db 97 DLVFLLL 103

## RESULT 21

AD3475  
 protein-Npi-phosphohistidine-sugar phosphotransferase (EC 2.7.1.69) [imported] - Brucella  
 C:Species: Brucella melitensis  
 C>Date: 01-Feb-2002 #sequence\_revision 01-Feb-2002 #text\_change 03-Jun-2002  
 C:Accession: AD3475  
 R:DelVecchio, V.G.; Kaputal, V.; Redkar, R.J.; Parra, G.; Mujer, C.; Los, T.; Ivanova,  
 .; Mazur, M.; Goltsman, E.; Selkov, E.; Elzer, P.H.; Hagius, S.; O'Callaghan, D.; Letesh  
 Proc. Natl. Acad. Sci. U.S.A. 99, 443-448, 2002  
 A>Title: The genome sequence of the facultative intracellular pathogen Brucella melitensis  
 A:Reference number: AD3252; PMID:11756688  
 A:Accession: AD3475  
 A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-154 <KUN>  
 A:Cross-references: GB:AS008917; PIDN:AAJ52967.1; PID:g17983818; GSPDB:GN00190  
 A:Experimental source: strain 16M  
 C:Genetics:  
 A:Gene: BMEI1786  
 A:Map position: 1  
 C:Superfamily: phosphotransferase system enzyme II; phosphotransferase system mannitol-  
 C:Keywords: phosphotransferase

Query Match 1.7%; Score 7; DB 2; Length 154;  
 Best Local Similarity 100.0%; Pred. No. 47;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 129 DLVFLLL 135

DB 97 DLVFLLL 103

## RESULT 22

H70004  
 conserved hypothetical protein ytzF - Bacillus subtilis  
 C:Species: Bacillus subtilis  
 C>Date: 05-Dec-1997 #sequence\_revision 05-Dec-1997 #text\_change 28-Jul-2000  
 C:Accession: H70004  
 R:Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter  
 C.; Bron, S.; Brouillet, S.; Brusch, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chd  
 A.; Ehrlich, S.D.; Emerson, P.T.; Enian, K.D.; Eyring, J.; Fabbet, C.; Ferrari, E.  
 Nature 390, 249-256, 1997  
 A:Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallen  
 ich, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.  
 Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois,  
 A:Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel  
 Y.M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle  
 Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon,  
 A:Authors: Schleich, S.; Schroeder, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seron  
 akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpetra, P.; Tognoni, A.; Tosato, V.; Uchiyama,  
 T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K  
 A:Authors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.  
 A>Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.  
 A:Reference number: AG9580; PMID:98044033; PMID:9384377  
 A:Accession: H70004  
 A>Status: preliminary; nucleic acid sequence not shown; translation not shown  
 A:Molecule type: DNA  
 A:Residues: 1-157 <KUN>  
 A:Cross-references: GB:Z99119; GB:ALC09126; NID:g2635411; PIDN:CAB14981.1; PID:g2635487  
 A:Experimental source: strain 168  
 C:Genetics:  
 A:Gene: ytzF  
 C:Superfamily: Mycobacterium tuberculosis hypothetical protein Rv1711

Query Match 1.7%; Score 7; DB 2; Length 157;

Best Local Similarity 100.0%; Pred. No. 48;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 28 DTGFLLL 34

DB 23 DTGFLLL 29

## RESULT 23

S64213  
 hypothetical protein YGL196w - yeast (Saccharomyces cerevisiae)  
 N:Alternate names: hypothetical protein G1315  
 C:Species: Saccharomyces cerevisiae  
 C>Date: 17-May-1996 #sequence\_revision 17-May-1996 #text\_change 19-Apr-2002  
 C:Accession: S64213; S62049  
 R:Brusch, C.V.; Coglievina, M.; Bertani, I.; Klima, R.; Zaccaria, P.; Delneri, D.  
 submitted to the Protein Sequence Database, May 1996  
 A:Reference number: S64183  
 A:Accession: S64213  
 A:Molecule type: DNA  
 A:Residues: 1-165 <BRU>  
 A:Cross-references: EMBL:Z72718; NID:g1322822; PIDN:CAA96908.1; PID:g1322823; MIPS:YGL1.  
 A:Experimental source: strain S288C  
 R:Klima, R.; Coglievina, M.; Bertani, I.; Zaccaria, P.; Bruschi, C.V.  
 submitted to the EMBL Data Library, September 1995  
 A:Reference number: S62045  
 A:Accession: S62049  
 A:Molecule type: DNA  
 A:Residues: 1-147, RTRDTEANKLERNYSTKLGSKIAVLPHACITMGQPPYFVNVNSEGVNDVWLPFOKW' <KLI>  
 A:Cross-references: EMBL:X91837; NID:g1177627; PIDN:CAA62948.1; PID:g1177632  
 A:Experimental source: strain FY1679  
 C:Genetics:  
 A:Cross-references: SGD:S0003164  
 A:Map position: 7L  
 C:Superfamily: Saccharomyces cerevisiae hypothetical protein YGL196w

Query Match 1.7%; Score 7; DB 2; Length 165;

Best Local Similarity 100.0%; Pred. No. 50;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 10 LSGFVLG 16

DB 84 LSGFVLG 90

## RESULT 24

E90621  
 NADH dehydrogenase chain 6 ND6 [imported] - Tinamus major mitochondrion  
 C:Species: Mitochondrion Tinamus major  
 C>Date: 15-Jun-2001 #sequence\_revision 15-Jun-2001 #text\_change 03-Aug-2001  
 C:Accession: E90621  
 R:Hadrath, O.; Baker, A.J.  
 Proc. R. Soc. Lond. B Biol. Sci. 268, 939-945, 2001  
 A>Title: Complete mitochondrial DNA genome sequences of extinct birds: ratite phylogen  
 A:Reference number: A99613; MUID:21263106; PMID:11370967  
 A:Accession: E90621  
 A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-173 <KUR>  
 A:Cross-references: GB:NC\_002781; NID:g14141960; PIDN:NP\_115401.1; GSPDB:GN00160  
 C:Genetics:  
 A:Gene: ND6  
 A:Genome: mitochondrion  
 A:Genetic code: SGCI  
 C:Superfamily: NADH dehydrogenase (ubiquinone) chain 6  
 C:Keywords: mitochondrion

Query Match 1.7%; Score 7; DB 2; Length 173;

Best Local Similarity 100.0%; Pred. No. 52;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 13 FVLGALA 19

DB 12 FVLGALA 18

## RESULT 25

E90617  
 NADH dehydrogenase chain 6 ND6 [imported] - Pterocnemia pennata mitochondrion

C:Species: mitochondrion Pterocnemis pennata  
C:Date: 15-Jun-2001 #sequence\_revision 15-Jun-2001 #text\_change 03-Aug-2001  
A:Accession: E30617  
R:Hadrath, O.; Baker, A.J.  
Proc. R. Soc. Lond. B Biol. Sci. 268, 939-945, 2001  
A>Title: Complete mitochondrial DNA genome sequences of extinct birds: ratite phylogeny  
A:Reference number: A99613; MUID:21263106; PMID:11370967  
A:Accession: E30617  
A>Status: Preliminary  
A:Molecule type: DNA  
A:Residues: 1-174 <KUR>  
A:Cross-references: GB:NC\_002783; NID:G14141904; PIDN:NP\_115427.1; GSPDB:GN00158  
C:Genetics:  
A:Gene: ND6  
A:Genome: mitochondrion  
A:Genetic code: SGC1  
C:Superfamily: NADH dehydrogenase (ubiquinone) chain 6  
C:Keywords: mitochondrion

Query Match 1.7%; Score 7; DB 2; Length 174;  
Best Local Similarity 100.0%; Pred. No. 53;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 13 FVLGALA 19  
|||  
DB 13 FVLGALA 19

RESULT 26  
T37444  
probable 20.7K protein - vaccinia virus (strain Ankara)  
C:Species: vaccinia virus  
A:Variety: strain Ankara  
C:Date: 21-Jan-2000 #sequence\_revision 21-Jan-2000 #text\_change 15-Sep-2003  
A:Accession: T37444  
R:Antoine, G.; Scheiflinger, F.; Falkner, F.G.; Dorner, F.  
submitted to the EMBL Data Library, March 1997  
A:Description: The complete genomic sequence of the Modified Vaccinia Ankara (MVA) strain  
A:Reference number: Z30877  
A:Accession: T37444  
A>Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-177 <ANT>  
A:Cross-references: EMBL:U94848; PIDN:AAB96549.1  
A:Experimental source: strain Ankara  
C:Genetics:  
A>Note: MVA175R  
C:Superfamily: uncharacterized conserved protein

Query Match 1.7%; Score 7; DB 2; Length 177;  
Best Local Similarity 100.0%; Pred. No. 54;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 138 SIITESC 144  
|||  
DB 62 SIITESC 68

RESULT 27  
JQ1801  
B7R 21.3K protein precursor - vaccinia virus (strains WR and Copenhagen)  
C:Species: vaccinia virus  
C:Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 15-Sep-2003  
A:Accession: JQ1801; E38550; F42526  
R:Smith, G.L.; Chan, Y.S.; Howard, S.T.  
J. Gen. Virol. 72, 1349-1376, 1991  
A>Title: Nucleotide sequence of 42kbp of vaccinia virus strain WR from near the right in  
A:Reference number: JQ1767; MUID:91259063; PMID:2045793  
A:Accession: JQ1801  
A:Molecule type: DNA  
A:Residues: 1-182 <SMI>  
A:Cross-references: DDBJ:D11079; NID:G222717; PIDN:BA01837.1; PID:G222752; GB:M58056; N  
T09390  
A:Experimental source: strain WR

R:Howard, S.T.; Chan, Y.S.; Smith, G.L.  
Virology 180, 633-647, 1991  
A>Title: Vaccinia virus homologues of the Shope fibroma virus inverted terminal repeat  
A:Reference number: A38550; MUID:91111982; PMID:1846491  
A:Accession: E38550  
A:Molecule type: DNA  
A:Residues: 1-182 <HOW>  
A:Cross-references: GB:M58052  
R:Johnson, G.P.  
submitted to GenBank, June 1990  
A:Reference number: A33172  
A:Accession: F42526  
A>Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-182 <JOH>  
A:Experimental source: strain Copenhagen  
C:Superfamily: uncharacterized conserved protein  
F:1-20/Domain: signal sequence #status predicted <SIG>  
F:21-182/Product: B7R protein #status predicted <MAI>

Query Match 1.7%; Score 7; DB 2; Length 182;  
Best Local Similarity 100.0%; Pred. No. 55;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 138 SIITESC 144  
|||  
DB 62 SIITESC 68

RESULT 28  
T00519  
proline-rich protein At2g23130 - Arabidopsis thaliana  
N:Alternate names: protein T20D16.24  
C:Species: Arabidopsis thaliana (mouse-ear cress)  
C:Date: 01-Feb-1999 #sequence\_revision 01-Feb-1999 #text\_change 23-Mar-2001  
A:Accession: T00519; H84620  
R:Rounsley, S.D.; Lin, X.; Ketchum, K.A.; Crosby, M.L.; Brandon, R.C.; Sykes, S.M.; Kau  
submitted to the EMBL Data Library, November 1997  
A:Description: Arabidopsis thaliana chromosome II BAC T20D16 genomic sequence.  
A:Reference number: Z14164  
A:Accession: T00519  
A>Status: translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-185 <ROU>  
A:Cross-references: EMBL:AC002391; NID:G2642427; PID:G2642449  
A:Experimental source: cultivar Columbia  
R:Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.L.; Town, C.D.; Fujii, C.Y.;  
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, L.  
euss, D.; Niezman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter,  
Nature 402, 761-768, 1999  
A>Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.  
A:Reference number: A84420; MUID:20083487; PMID:10617197  
A:Accession: H84620  
A>Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-185 <STO>  
A:Cross-references: GB:AE002093; NID:G2642449; PIDN:AAB87117.1; GSPDB:GN00139  
A:Gene: T20D16.24; At2g23130  
A:Map position: 2  
A:Introns: 158/3

Query Match 1.7%; Score 7; DB 2; Length 185;  
Best Local Similarity 100.0%; Pred. No. 56;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 337 PASTPQI 343  
|||  
DB 76 PASTPQI 82

RESULT 29  
T09390

21K protein precursor - alfalfa  
C:Species: Medicago sativa (alfalfa)  
C>Date: 11-Jun-1999 #sequence\_revision 11-Jun-1999 #text\_change 11-Jun-1999  
C:Accession: T09390  
R:Coronado, C.  
submitted to the EMBL Data Library, February 1997  
A:Reference number: Z16658  
A:Accession: T09390  
A>Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: mRNA  
A:Residues: 1-187 <OR>  
A:CROSS-references: EMBL:Y11553; NID:e1029850; PID:g304664  
A:Experimental source: strain A2, subspecies varia; nodule  
F1-18/Domain: signal sequence #status predicted <SG>  
F19-187/Product: 21 K protein #status predicted <Mar>  
  
Query Match 1.7%; Score 7; DB 2; Length 187;  
Best Local Similarity 100.0%; Pred. No. 56;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 130 LVFLLLT 136  
DB 7 LVFLLLT 13  
  
RESULT 30  
G84018  
Hypothetical protein BH2951 [imported] - Bacillus halodurans (strain C-125)  
C:Species: Bacillus halodurans  
C>Date: 01-Dec-2000 #sequence\_revision 01-Dec-2000 #text\_change 15-Jun-2001  
C:Accession: G84018  
R:Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fujii, F.; Hira  
Nucleic Acids Res. 28, 4317-4331, 2000  
A>Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and  
A:Reference number: A83650; MUID:20512582; PMID:11059132  
A:Accession: G84018  
A>Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-190 <STO>  
A:CROSS-references: GB:AP001517; GB:BA000004; NID:g10175500; PIDN:BAE06670.1; GSPDB:GN00  
A:Experimental source: strain C-125  
C:Genetics:  
A:Gene: BH2951  
  
Query Match 1.7%; Score 7; DB 2; Length 190;  
Best Local Similarity 100.0%; Pred. No. 57;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 165 PLVWVNL 171  
DB 95 PLVWVNL 101  
  
RESULT 31  
T18495  
Hypothetical protein C0795w - malaria parasite (Plasmodium falciparum)  
C:Species: Plasmodium falciparum  
C>Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 09-Jun-2000  
C:Accession: T18495  
R:Lawson, D.; Bowman, S.; Barrell, B.  
submitted to the EMBL Data Library, August 1997  
A:Reference number: Z18935  
A:Accession: T18495  
A>Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-202 <LAW>  
A:CROSS-references: EMBL:Z98551; NID:e1331903; PID:e1331916; PIDN:CAB11134.1  
C:Genetics:  
A:Map position: 3  
A:Note: C0795w  
  
Query Match 1.7%; Score 7; DB 2; Length 202;  
Best Local Similarity 100.0%; Pred. No. 60;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 85 LKKILSN 91  
DB 112 LKKILSN 118  
  
RESULT 32  
B64357  
Hypothetical protein homolog MJ0458 - Methanococcus jannaschii  
C:Species: Methanococcus jannaschii  
C>Date: 10-Sep-1999 #sequence\_revision 10-Sep-1999 #text\_change 04-Aug-2003  
C:Accession: B64357  
R:Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blake,  
; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, A.  
rson, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A.  
Science 273, 1058-1073, 1996  
A:Authors: Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese,  
A>Title: Complete genome sequence of the methanogenic archaeon, Methanococcus jannaschi  
A:Reference number: A64300; MUID:96337999; PMID:8688087  
A:Accession: B64357  
A>Status: preliminary; nucleic acid sequence not shown; translation not shown  
A:Molecule type: DNA  
A:Residues: 1-216 <BUL>  
A:CROSS-references: GB:U67496; GB:L77117; NID:g2826283; PIDN:AAE98446.1; PID:g1499252;  
C:Genetics:  
A:Map position: FOR409196-409846  
C:Superfamily: kinase with amino acid kinase domain  
  
Query Match 1.7%; Score 7; DB 1; Length 216;  
Best Local Similarity 100.0%; Pred. No. 64;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 250 LKREIEK 256  
DB 89 LKREIEK 95  
  
RESULT 33  
T22259  
Hypothetical protein F46A8.3 - Caenorhabditis elegans  
C:Species: Caenorhabditis elegans  
C>Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 15-Oct-1999  
C:Accession: T22259  
R:Harris, B.  
submitted to the EMBL Data Library, November 1996  
A:Reference number: Z19539  
A:Accession: T22259  
A>Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-228 <WIL>  
A:CROSS-references: EMBL:Z81539; PIDN:CAB04389.1; GSPDB:GN000019; CESP:F46A8.3  
A:Experimental source: clone F46A8  
C:Genetics:  
A:Gene: CESP:F46A8.3  
A:Map position: 1  
A:Introns: 149/3  
  
Query Match 1.7%; Score 7; DB 2; Length 228;  
Best Local Similarity 100.0%; Pred. No. 67;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
QY 130 LVFLLLT 136  
DB 3 LVFLLLT 9  
  
RESULT 34  
H84119  
ATP synthase subunit a atpB [imported] - Bacillus halodurans (strain C-125)  
C:Species: Bacillus halodurans  
C>Date: 01-Dec-2000 #sequence\_revision 01-Dec-2000 #text\_change 15-Jun-2001  
C:Accession: H84119

R;Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fujii, F.; Hira  
Nucleic Acids Res. 28, 4317-4331, 2000  
A;Title: Complete genome sequence of the alkaliphilic bacterium *Bacillus halodurans* and  
A;Reference number: A83650; MUID:20512582; PMID:11058132  
A;Accession: H84119  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-237 <STO>  
A;Cross-references: GB:AP001519; GB:BA000004; NID:g10176109; PIDN:BA07479.1; GSPDB:GN00  
A;Experimental source: strain C-125  
C;Genetics:  
A;Gene: atpB  
C;Superfamily: H<sup>+</sup>-transporting ATP synthase protein 6

Query Match 1.7%; Score 7; DB 2; Length 237;  
Best Local Similarity 100.0%; Pred. No. 70;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 397 MKGFGY 403  
|||||  
DB 135 MKGFGY 141

RESULT 35  
H97081  
proline/glycine betaine ABC transport system, ATPase component CAC1475 [imported] - Clos  
C;Species: *Clostridium acetobutylicum*  
C;Date: 14-Sep-2001 #sequence\_revision 14-Sep-2001 #text\_change 14-Sep-2001  
C;Accession: H97081  
R;Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.; Zeng, Q.; Gibson, R.; Lee,  
J.; Daly, M.J.; Bennett, G.N.; Koonin, E.V.; Smith, D.R.  
J. Bacteriol. 183, 4823-4838, 2001  
A;Title: Genome Sequence and Comparative Analysis of the Solvent-Producing Bacterium Cld  
A;Reference number: A96900; MUID:21359325; PMID:21359325  
A;Accession: H97081  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-254 <KUR>  
A;Cross-references: GB:AE001437; PIDN:AAK79443.1; PID:g15024420; GSPDB:GN00168  
A;Experimental source: *Clostridium acetobutylicum* ATCC824  
C;Genetics:  
A;Gene: CAC1475

Query Match 1.7%; Score 7; DB 2; Length 254;  
Best Local Similarity 100.0%; Pred. No. 74;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 251 KREIEKR 257  
|||||  
DB 111 KREIEKR 117

RESULT 36  
B69197  
conserved hypothetical protein MTH727 - *Methanobacterium thermoautotrophicum* (strain Del  
C;Species: *Methanobacterium thermoautotrophicum*  
C;Date: 05-Dec-1997 #sequence\_revision 05-Dec-1997 #text\_change 06-Jan-2003  
C;Accession: B69197  
R;Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.;  
Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, N.;  
ki, S.; Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.  
J. Bacteriol. 179, 7135-7155, 1997  
A;Title: Complete genome sequence of *Methanobacterium thermoautotrophicum* Delta H: funct  
A;Reference number: A69000; MUID:98037514; PMID:9371463  
A;Accession: B69197  
A;Status: preliminary; nucleic acid sequence not shown; translation not shown  
A;Molecule type: DNA  
A;Residues: 1-256 <MTH>  
A;Cross-references: GB:AE000852; GB:AE000666; NID:g2621812; PIDN:AA858232.1; PID:g262181  
A;Experimental source: strain Delta H  
C;Genetics:  
A;Gene: MTH727  
A;Start codon: TTG

C;Superfamily: uncharacterized conserved protein

Query Match 1.7%; Score 7; DB 2; Length 256;  
Best Local Similarity 100.0%; Pred. No. 75;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 10 LSGFVLG 16  
|||||  
DB 39 LSGFVLG 45

RESULT 37  
D95161  
hypothetical protein SP1387 [imported] - *Streptococcus pneumoniae* (strain TIGR4)  
C;Species: *Streptococcus pneumoniae*  
C;Date: 03-Aug-2001 #sequence\_revision 03-Aug-2001 #text\_change 24-Aug-2001  
C;Accession: D95161  
R;Tettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Hei  
on, J.D.; Umayam, L.A.; White, O.; Salzberg, S.L.; Lewis, M.R.; Radune, D.; Holtzapple,  
nson, T.; Hickey, E.K.; Holt, I.E.  
Science 293, 498-506, 2001  
A;Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison  
A;Title: Complete genome sequence of a virulent isolate of *Streptococcus pneumoniae*.  
A;Reference number: A95000; MUID:21357209; PMID:11463916  
A;Accession: D95161  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-257 <KUR>  
A;Cross-references: GB:AE005672; PIDN:AAK75485.1; PID:g14972874; GSPDB:GN00164; TIGR:SP  
A;Experimental source: strain TIGR4  
C;Genetics:  
A;Gene: SP1387  
C;Superfamily: spermidine/putrescine transport system permease protein pot1

Query Match 1.7%; Score 7; DB 2; Length 257;  
Best Local Similarity 100.0%; Pred. No. 75;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 135 LTPSIIT 141  
|||||  
DB 179 LTPSIIT 185

RESULT 38  
AF0024  
peptidylprolyl isomerase (EC 5.2.1.8) [imported] - *Yersinia pestis* (strain CO92)  
C;Species: *Yersinia pestis*  
C;Date: 02-Nov-2001 #sequence\_revision 02-Nov-2001 #text\_change 01-Feb-2002  
C;Accession: AF0024  
R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B  
deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;  
il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrall,  
Nature 413, 523-527, 2001  
A;Title: Genome sequence of *Yersinia pestis*, the causative agent of plague.  
A;Reference number: AB0001; MUID:21470413; PMID:11586360  
A;Accession: AF0024  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-266 <KUR>  
A;Cross-references: GB:AL590842; PIDN:CAC89056.1; PID:g15978296; GSPDB:GN00175  
C;Genetics:  
A;Gene: fkpA  
C;Superfamily: Escherichia coli peptidylprolyl isomerase fklB; BKBP-type peptidylprolyl  
C;Keywords: cis-trans-isomerase

Query Match 1.7%; Score 7; DB 2; Length 266;  
Best Local Similarity 100.0%; Pred. No. 77;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 390 TDEIEIK 396  
|||||  
DB 91 TDEIEIK 97

RESULT 39  
H95122  
ABC-2 transporter, permease protein, probable SPI063 [imported] - Streptococcus pneumoniae  
C:Species: Streptococcus pneumoniae  
C>Date: 03-Aug-2001 #sequence\_revision 03-Aug-2001 #text\_change 03-Aug-2001  
C:Accession: H95122  
R:Tettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Heid  
on, J.D.; Unayam, L.A.; White, O.; Salzberg, S.L.; Lewis, M.R.; Radune, D.; Holtzapfel,  
non, T.; Hickey, E.K.; Holt, I.E.  
Science 293, 498-506, 2001  
A:Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison,  
A:Title: Complete Genome Sequence of a virulent isolate of Streptococcus pneumoniae.  
A:Reference number: A95000; MUID:21357209; PMID:11463916  
A:Accession: H95122  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-266 <KUR>  
A:Cross-references: GB:AE005672; PIDN:RAK75177.1; PID:gl4972538; GSPDB:GN00164; TIGR:SP4  
A:Experimental source: strain TIGR4  
C:Genetics:  
A:Gene: SPI063

Query Match 1.7%; Score 7; DB 2; Length 266;  
Best Local Similarity 100.0%; Pred. No. 77;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 130 LVFLLLT 136  
|||  
Db 238 LVFLLLT 244

RESULT 40  
D64456  
protein-export membrane protein - Methanococcus jannaschii  
C:Species: Methanococcus jannaschii  
C>Date: 13-Sep-1996 #sequence\_revision 13-Sep-1996 #text\_change 21-Jul-2000  
C:Accession: D64456  
R:Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blake,  
; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, A.;  
rson, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A.  
Science 273, 1058-1073, 1996  
A:Authors: Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese, C  
A:Title: Complete genome sequence of the methanogenic archaeon, Methanococcus jannaschii  
A:Reference number: A64300; MUID:96337999; PMID:8688087  
A:Accession: D64456  
A:Status: preliminary; nucleic acid sequence not shown; translation not shown  
A:Molecule type: DNA  
A:Residues: 1-282 <BUL>  
A:Cross-references: GB:U67565; GB:L77117; NID:gl591874; PIDN:AAB99256.1; PID:gl591886; T  
C:Genetics:  
A:Map position: REV1195831-1194983  
C:Superfamily: Methanobacterium thermoautotrophicum protein-export membrane protein seq

Query Match 1.7%; Score 7; DB 2; Length 282;  
Best Local Similarity 100.0%; Pred. No. 82;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 199 SSKFFEE 205  
|||  
Db 114 SSKFFEE 120

RESULT 41  
T51837  
MTN3 homolog [imported] - Arabidopsis thaliana  
C:Species: Arabidopsis thaliana (mouse-ear cress)  
C>Date: 18-Aug-2000 #sequence\_revision 18-Aug-2000 #text\_change 18-Aug-2000  
C:Accession: T51837  
R:Cheong, J.J.  
submitted to the EMBL Data Library, September 1998  
A:Description: An Arabidopsis cDNA clone encoding a protein homologous to Medicago trunc  
A:Reference number: Z25480

A:Accession: T51837  
A:Status: preliminary; translated from GB/EMBL/DDBJ  
A:Molecule type: mRNA  
A:Residues: 1-285 <CHE>  
A:Cross-references: EMBL:AF095641; PIDN:AAC64192.1  
C:Genetics:  
A:Note: MTN3

Query Match 1.7%; Score 7; DB 2; Length 285;  
Best Local Similarity 100.0%; Pred. No. 82;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 12 GFVLGAL 18  
|||  
Db 200 GFVLGAL 206

RESULT 42  
A37818  
osteopontin precursor - mouse  
N:Alternate names: Bone sialoprotein I; early T lymphocyte activation 1 protein; phosph  
C:Species: Mus musculus (house mouse)  
C>Date: 12-Feb-1993 #sequence\_revision 27-Jun-1994 #text\_change 10-Sep-1999  
C:Accession: A37818; S04078; S12064; A33853; J0105; A60931; S11677  
R:Miyauchi, Y.; Setoguchi, M.; Yoshida, S.; Higuchi, Y.; Akizuki, S.; Yamamoto, S.  
J. Biol. Chem. 265, 14432-14438, 1990  
A:Title: The mouse osteopontin gene. Expression in monocytic lineages and complete nucl  
A:Reference number: A37818; MUID:90354433; PMID:2387863  
A:Accession: A37818  
A:Molecule type: DNA  
A:Residues: 1-294 <MIY>  
A:Cross-references: EMBL:X51834  
R:Miyauchi, Y.; Setoguchi, M.; Yoshida, S.; Higuchi, Y.; Akizuki, S.; Yamamoto, S.  
Nucleic Acids Res. 17, 3298, 1989  
A:Title: Nucleotide sequence of cDNA for mouse osteopontin-like protein.  
A:Reference number: S04078; MUID:89263742; PMID:2726465  
A:Accession: S04078  
A:Molecule type: mRNA  
A:Residues: 1-294 <MI2>  
A:Cross-references: EMBL:X13986; NID:gs53755; PIDN:CAA32165.1; PID:gs53756  
R:Yamamoto, S.  
submitted to the EMBL Data Library, January 1990  
A:Reference number: S12064  
A:Accession: S12064  
A:Molecule type: DNA  
A:Residues: 1-121, 'F', 123-294 <YAM>  
A:Cross-references: EMBL:X51834; NID:gs53520; PIDN:CAA36132.1; PID:gs297546  
R:Craig, A.M.; Smith, J.H.; Denhardt, D.T.  
J. Biol. Chem. 264, 9682-9689, 1989  
A:Title: Osteopontin, a transformation-associated cell adhesion phosphoprotein, is indu  
A:Reference number: A33853; MUID:89255479; PMID:2722855  
A:Accession: A33853  
A:Molecule type: mRNA  
A:Residues: 1-98, 'G', 100-294 <CRA>  
A:Cross-references: GB:J04806; NID:gs200157; PIDN:AA57265.1; PID:gs200158  
R:Patara, R.; Freeman, G.U.; Singh, R.P.; Wei, F.Y.; Duffee, T.; Blattner, F.; Regnier  
J. Exp. Med. 170, 145-161, 1989  
A:Title: Structural and functional studies of the early T lymphocyte activation 1 (Eta-  
on.  
A:Reference number: J0105; MUID:89310352; PMID:2787378  
A:Accession: J0105  
A:Molecule type: mRNA  
A:Residues: 1-42, 'P', 44-294 <PAT>  
A:Cross-references: EMBL:X16151; NID:gs0863; PIDN:CAA34276.1; PID:gs0864  
R:Singh, R.P.; Patara, R.; Schwartz, J.; Singh, P.; Cantor, H.  
J. Exp. Med. 171, 1931-1942, 1990  
A:Title: Definition of a specific interaction between the early T lymphocyte activation  
A:Reference number: A60931; MUID:90278349; PMID:2351930  
A:Accession: A60931  
A:Molecule type: protein  
A:Residues: 158-176 <SIN>  
C:Comment: This protein is an acidic glycoprotein rich in aspartic acid, glutamic acid,  
C:Genetics:



A:Gene: Eta-1  
A:Map position: 5  
A:Introns: 18/3; 30/3; 57/3; 71/3; 165/3  
C:Superfamily: osteopontin  
C:Keywords: bone; cell binding; extracellular matrix; phosphoprotein; sialoglycoprotein  
F:1-16/Domain: signal sequence #status predicted <SIG>  
F:17-294/Product: osteopontin #status predicted <MAT>  
F:85-96/Region: aspartic acid-rich  
F:144-146/Region: cell attachment (R-G-D) motif  
F:78/Binding site: carbohydrate (asn) (covalent) #status predicted

Query Match 1.7%; Score 7; DB 1; Length 294;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 146 THRLEHS 152  
|||  
DB 222 THRLEHS 228

RESULT 43  
H70208  
outer surface protein B precursor - Lyme disease spirochete plasmid A/lp54  
C:Species: Borrelia burgdorferi (Lyme disease spirochete)  
C:Date: 13-Feb-1998 #sequence\_revision 13-Feb-1998 #text\_change 04-Mar-2000  
C:Accession: H70208  
R:Fraser, C.M.; Casjens, S.; Huang, W.M.; Sutton, G.G.; Clayton, R.; Lathigra, R.; White, D.; Peterson, J.; Kerlavage, A.R.; Quackenbush, J.; Salzberg, S.; Hanson, M.; Vugt, son, D.; Bowman, C.; Garland, S.; Fujii, C.; Cotton, M.D.; Horst, K.; Roberts, K.; Hatch, B. Nature 390, 580-586, 1997  
A:Authors: Smith, H.O.; Venter, J.C.  
A:Title: Genomic sequence of a Lyme disease spirochaete, Borrelia burgdorferi.  
A:Reference number: A70100; MUID:98065943; PMID:9403685  
A:Accession: H70208  
A:Status: preliminary; nucleic acid sequence not shown; translation not shown  
A:Molecule type: DNA  
A:Residues: 1-296 <KLE>  
A:Cross-references: GB:AE000790; NID:G2690224; PIDN:AA066243.1; PID:G2690242; TIGR:BB416  
A:Experimental source: strain B31  
C:Genetics:  
A:Genome: plasmid  
C:Superfamily: outer surface protein A  
C:Keywords: blocked amino end; lipoprotein  
F:1-15/Domain: signal sequence #status predicted <SIG>  
F:16-296/Product: outer surface protein B #status predicted <MAT>  
F:16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F:16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEK 256  
|||  
DB 212 LKREIEK 218

RESULT 44  
S06915  
outer surface protein B precursor - Lyme disease spirochete  
C:Species: Borrelia burgdorferi (Lyme disease spirochete)  
C:Date: 07-Jun-1990 #sequence\_revision 07-Jun-1990 #text\_change 04-Mar-2000  
C:Accession: S06915; I40262  
R:Bergstrom, S.; Bundoc, V.G.; Barbour, A.G. Mol. Microbiol. 3, 479-486, 1989  
A:Title: Molecular analysis of linear plasmid-encoded major surface proteins, OspA and C  
A:Reference number: S06914; MUID:89343634; PMID:2761388  
A:Accession: S06915  
A:Molecule type: DNA  
A:Residues: 1-296 <RES>  
A:Cross-references: EMBL:X14407; NID:G39383; PIDN:CAA32580.1; PID:G39385  
A:Experimental source: strain B31  
R:Caporale, D.A.; Kocher, T.D.

Mol. Biol. Evol. 11, 51-64, 1994  
A:Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A:Reference number: I40249; MUID:94166630; PMID:8121286  
A:Accession: I40262  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-296 <RES>  
A:Cross-references: GB:L23142; NID:G349657; PIDN:AAA20956.1; PID:G349659  
A:Experimental source: strain B31  
C:Genetics:  
A:Gene: ospB  
C:Superfamily: outer surface protein A  
C:Keywords: blocked amino end; lipoprotein  
F:1-15/Domain: signal sequence #status predicted <SIG>  
F:16-296/Product: outer surface protein A #status predicted <MAT>  
F:16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F:16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEK 256  
|||  
DB 212 LKREIEK 218

RESULT 45  
I40260  
outer surface protein B precursor - Lyme disease spirochete  
C:Species: Borrelia burgdorferi (Lyme disease spirochete)  
C:Date: 12-Aug-1996 #sequence\_revision 12-Aug-1996 #text\_change 04-Mar-2000  
C:Accession: I40260  
R:Caporale, D.A.; Kocher, T.D. Mol. Biol. Evol. 11, 51-64, 1994  
A:Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A:Reference number: I40249; MUID:94166630; PMID:8121286  
A:Accession: I40260  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-296 <RES>  
A:Cross-references: GB:L23141; NID:G349654; PIDN:AAA20954.1; PID:G349656  
C:Genetics:  
A:Gene: OspB  
C:Superfamily: outer surface protein A  
C:Keywords: blocked amino end; lipoprotein  
F:1-15/Domain: signal sequence #status predicted <SIG>  
F:16-296/Product: outer surface protein B #status predicted <MAT>  
F:16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F:16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEK 256  
|||  
DB 212 LKREIEK 218

RESULT 46  
I40258  
outer surface protein B precursor - Lyme disease spirochete  
C:Species: Borrelia burgdorferi (Lyme disease spirochete)  
C:Date: 12-Aug-1996 #sequence\_revision 12-Aug-1996 #text\_change 04-Mar-2000  
C:Accession: I40258  
R:Caporale, D.A.; Kocher, T.D. Mol. Biol. Evol. 11, 51-64, 1994  
A:Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A:Reference number: I40249; MUID:94166630; PMID:8121286  
A:Accession: I40258  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA

A;Residues: 1-296 <RES>  
A;Cross-references: GB:L23140; NID:G349651; PIDN:AAA20952.1; PID:G349653  
C;Genetics:  
A;Gene: OspB  
C;Superfamily: outer surface protein A  
C;Keywords: blocked amino end; lipoprotein  
F;1-15/Domain: signal sequence #status predicted <SIG>  
F;16-296/Product: outer surface protein B #status predicted <MAT>  
F;16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F;16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 250 LKREIEK 256  
| | | | |  
Db 212 LKREIEK 218

RESULT 47  
I40252  
outer surface protein B precursor - Lyme disease spirochete  
C;Species: Borrelia burgdorferi (Lyme disease spirochete)  
C;Date: 12-Aug-1996 #sequence\_revision 12-Aug-1996 #text\_change 04-Mar-2000  
C;Accession: I40252  
R;Caporale, D.A.; Kocher, T.D.  
Mol. Biol. Evol. 11, 51-64, 1994  
A;Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A;Reference number: I40249; MUID:94166630; PMID:8121286  
A;Accession: I40252  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-296 <RES>  
A;Cross-references: GB:L23137; NID:G349642; PIDN:AAA22954.1; PID:G349644  
A;Experimental source: strain 27985CT2  
A;Accession: I40254  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-296 <RE2>  
A;Cross-references: GB:L23138; NID:G349645; PIDN:AAA20948.1; PID:G349647  
A;Experimental source: strain 1953SNY2  
C;Genetics:  
A;Gene: ospB  
C;Superfamily: outer surface protein A  
C;Keywords: blocked amino end; lipoprotein  
F;1-15/Domain: signal sequence #status predicted <SIG>  
F;16-296/Product: outer surface protein B #status predicted <MAT>  
F;16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F;16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 250 LKREIEK 256  
| | | | |  
Db 212 LKREIEK 218

RESULT 48  
I40264  
outer surface protein B precursor - Lyme disease spirochete  
C;Species: Borrelia burgdorferi (Lyme disease spirochete)  
C;Date: 12-Aug-1996 #sequence\_revision 12-Aug-1996 #text\_change 04-Mar-2000  
C;Accession: I40264  
R;Caporale, D.A.; Kocher, T.D.  
Mol. Biol. Evol. 11, 51-64, 1994  
A;Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A;Reference number: I40249; MUID:94166630; PMID:8121286  
A;Accession: I40264  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA

A;Residues: 1-296 <RES>  
A;Cross-references: GB:L23143; NID:G349660; PIDN:AAA20958.1; PID:G349662  
C;Genetics:  
A;Gene: OspB  
C;Superfamily: outer surface protein A  
C;Keywords: blocked amino end; lipoprotein  
F;1-15/Domain: signal sequence #status predicted <SIG>  
F;16-296/Product: outer surface protein B #status predicted <MAT>  
F;16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F;16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 250 LKREIEK 256  
| | | | |  
Db 212 LKREIEK 218

RESULT 49  
I40250  
outer surface protein B precursor - Lyme disease spirochete  
C;Species: Borrelia burgdorferi (Lyme disease spirochete)  
C;Date: 12-Aug-1996 #sequence\_revision 12-Aug-1996 #text\_change 04-Mar-2000  
C;Accession: I40250  
R;Caporale, D.A.; Kocher, T.D.  
Mol. Biol. Evol. 11, 51-64, 1994  
A;Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A;Reference number: I40249; MUID:94166630; PMID:8121286  
A;Accession: I40250  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-296 <RES>  
A;Cross-references: GB:L23136; NID:G349639; PIDN:AAA22952.1; PID:G349641  
C;Genetics:  
A;Gene: OspB  
C;Superfamily: outer surface protein A  
C;Keywords: blocked amino end; lipoprotein  
F;1-15/Domain: signal sequence #status predicted <SIG>  
F;16-296/Product: outer surface protein B #status predicted <MAT>  
F;16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
F;16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
Best Local Similarity 100.0%; Pred. No. 85;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 250 LKREIEK 256  
| | | | |  
Db 212 LKREIEK 218

RESULT 50  
I40256  
outer surface protein B precursor - Lyme disease spirochete  
C;Species: Borrelia burgdorferi (Lyme disease spirochete)  
C;Date: 12-Aug-1996 #sequence\_revision 12-Aug-1996 #text\_change 04-Mar-2000  
C;Accession: I40256  
R;Caporale, D.A.; Kocher, T.D.  
Mol. Biol. Evol. 11, 51-64, 1994  
A;Title: Sequence variation in the outer-surface-protein genes of Borrelia burgdorferi.  
A;Reference number: I40249; MUID:94166630; PMID:8121286  
A;Accession: I40256  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-296 <RES>  
A;Cross-references: GB:L23139; NID:G349648; PIDN:AAA20950.1; PID:G349650  
C;Genetics:  
A;Gene: OspB  
C;Superfamily: outer surface protein A  
C;Keywords: blocked amino end; lipoprotein  
F;1-15/Domain: signal sequence #status predicted <SIG>

F16-296/Product: outer surface protein B #status predicted <MAT>  
 F16/Binding site: sn-2,3-diacylglycerol (Cys) (covalent) #status predicted  
 F16/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 296;  
 Best Local Similarity 100.0%; Pred. No. 85;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 250 LKREIEK 256  
 |||||  
 DB 212 LKREIEK 218

RESULT 51  
 G84345  
 hypothetical protein Vng1948h [imported] - Halobacterium sp. NRC-1  
 C/Species: Halobacterium sp. NRC-1  
 C/Date: 02-Feb-2001 #sequence\_revision 02-Feb-2001 #text\_change 02-Feb-2001  
 C/Accession: G84345  
 R/Jing, W.V.; Kennedy, S.P.; Mahairas, G.G.; Berquist, B.; Pan, M.; Shukla, H.D.; Lasky, S.; Leithausen, B.; Keller, K.; Cruz, R.; Danison, M.J.; Hough, D.W.; Maddocks, D.G.; Jablo  
 Jung, K.H.; Alam, M.; Freitas, T.  
 Proc. Natl. Acad. Sci. U.S.A. 97, 12176-12181, 2000  
 A/Authors: Hou, S.; Daniels, C.J.; Dennis, P.P.; Omer, A.D.; Ebhardt, H.; Lowe, T.M.; Li  
 A/Title: Genome sequence of Halobacterium species NRC-1.  
 A/Reference number: A84160; MUID:20504483; PMID:11016950  
 A/Accession: G84345  
 A/Status: preliminary  
 A/Molecule type: DNA  
 A/Residues: 1-304 <STO>  
 A/Cross-references: GB:AE004437; NID:gi0581386; PIDN:AAG20131.1; GSPDB:GN00138  
 C/Genetics:  
 A/Gene: VNG1948H

Query Match 1.7%; Score 7; DB 2; Length 304;  
 Best Local Similarity 100.0%; Pred. No. 87;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 175 EOLGYKT 181  
 |||||  
 DB 298 EOLGYKT 304

RESULT 52  
 F90487  
 maltose ABC transporter, permease SSO3058 [imported] - Sulfolobus solfataricus  
 C/Species: Sulfolobus solfataricus  
 C/Date: 24-May-2001 #sequence\_revision 24-May-2001 #text\_change 24-May-2001  
 C/Accession: F90487  
 R/She, Q.; Singh, R.K.; Confalonieri, F.; Zivanovic, Y.; Allard, G.; Awayez, M.J.; Chan-  
 Jong, I.; Jeffries, A.C.; Kozera, C.J.; Medina, N.; Peng, X.; Thi-Ngoc, H.P.; Redder, P.  
 arrett, R.A.; Ragan, M.A.; Senses, C.W.; Van der Oost, J.  
 submitted to GenBank, April 2001  
 A/Description: Sulfolobus solfataricus complete genome.  
 A/Reference number: A99139  
 A/Accession: F90487  
 A/Status: preliminary  
 A/Molecule type: DNA  
 A/Residues: 1-322 <KUR>  
 A/Cross-references: GB:AE006641; NID:gi13816462; PIDN:AAK43157.1; GSPDB:GN00155  
 C/Genetics:  
 A/Gene: SSO3058

Query Match 1.7%; Score 7; DB 2; Length 322;  
 Best Local Similarity 100.0%; Pred. No. 92;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 10 LSGFVLG 16  
 |||||  
 DB 199 LSGFVLG 205

RESULT 53

G84115  
 ribose operon transcription repressor rbsR [imported] - Bacillus halodurans (strain C-1  
 C/Species: Bacillus halodurans  
 C/Date: 01-Dec-2000 #sequence\_revision 01-Dec-2000 #text\_change 15-Jun-2001  
 C/Accession: G84115  
 R/Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fujii, F.; Hir  
 Nucleic Acids Res. 28, 4317-4331, 2000  
 A/Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and  
 A/Reference number: A83650; MUID:20512582; PMID:11058132  
 A/Accession: G84115  
 A/Status: preliminary  
 A/Molecule type: DNA  
 A/Residues: 1-331 <STO>  
 A/Cross-references: GB:AP001519; GB:BA000004; NID:gi0176109; PIDN:BAB07446.1; GSPDB:GNO  
 A/Experimental source: strain C-125  
 C/Genetics:  
 A/Gene: rbsR  
 C/Superfamily: lac repressor

Query Match 1.7%; Score 7; DB 2; Length 331;  
 Best Local Similarity 100.0%; Pred. No. 94;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 390 TDEEIEK 396  
 |||||  
 DB 97 TDEEIEK 103

RESULT 54  
 T12728  
 structural protein - Methanobacterium phage psiM2  
 N/Alternate names: protein 12  
 C/Species: Methanobacterium phage psiM2  
 C/Date: 13-Aug-1999 #sequence\_revision 13-Aug-1999 #text\_change 04-Mar-2000  
 C/Accession: T12728  
 R/Pfister, P.; Wasserfallen, A.; Stettler, R.; Leisinger, T.  
 submitted to the EMBL Data Library, May 1998  
 A/Description: Archaeophage PsiM2 complete genomic DNA.  
 A/Reference number: Z17578  
 A/Accession: T12728  
 A/Status: translated from GB/EMBL/DBDJ  
 A/Molecule type: DNA  
 A/Residues: 1-351 <PFI>  
 A/Cross-references: EMBL:AF065411; NID:gi3249585; PID:gi3249597; PIDN:AAC27051.1  
 A/Experimental source: host Methanobacterium thermoautotrophicum strain Marburg  
 C/Superfamily: Methanobacterium phage psiM2 structural protein

Query Match 1.7%; Score 7; DB 2; Length 351;  
 Best Local Similarity 100.0%; Pred. No. 1e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 204 EEDGSLK 210  
 |||||  
 DB 306 EEDGSLK 312

RESULT 55  
 T17751  
 hypothetical protein A257L - Chlorella virus PBCV-1  
 C/Species: Chlorella virus PBCV-1  
 C/Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 04-Mar-2000  
 C/Accession: T17751  
 R/Graves, M.V.; Van Etten, J.L.  
 submitted to the EMBL Data Library, May 1999  
 A/Reference number: Z18806  
 A/Accession: T17751  
 A/Status: preliminary; translated from GB/EMBL/DBDJ  
 A/Molecule type: DNA  
 A/Residues: 1-361 <GRA>  
 A/Cross-references: EMBL:U42580; NID:gi4028896; PIDN:AAC96625.1  
 A/Experimental source: specific host Chlorella strain NC64A  
 C/Genetics:  
 A/Note: A257L

C:Superfamily: Chlorella virus PBCV-1 hypothetical protein A257L

Query Match 1.7%; Score 7; DB 2; Length 361;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 25 TDSDFEG 31  
Db 260 TDSDFEG 266

RESULT 56  
JC4748  
polygalacturonase (EC 3.2.1.15) precursor - anthracnose fungus (Colletotrichum lindemuthianum)  
N:Alternate names: pectin depolymerase; pectinase  
C:Species: Colletotrichum lindemuthianum  
C:Date: 10-May-1996 #sequence\_revision 16-Aug-1996 #text\_change 21-Jul-2000  
C:Accession: JC4748  
R:Centis, S.; Dumas, B.; Fournier, J.; Marolda, M.; Esquerre-Tugaye, M.  
Gene 170, 125-129, 1996  
A:Title: Isolation and sequence analysis of Clpg1, a gene coding for an endopolygalacturonase  
A:Reference number: JC4748; MUID:96200868; PMID:8621072  
A:Accession: JC4748  
A:Molecule type: DNA  
A:Residues: 1-363 <CEN>  
A:Cross-references: EMBL:X89370; NID:gl332456; PIDN:CAA61552.1; PID:gl332457  
C:Comment: This enzyme catalyzes the hydrolytic cleavage of glycosidic alpha-1,4-linkage  
C:Genetics:  
A:Gene: Clpg1  
A:Introns: 74/3  
C:Superfamily: polygalacturonase  
C:Keywords: glycosidase; hydrolase; polysaccharide degradation  
F:1-26/Domain: signal sequence #status predicted <SIG>  
F:27-363/Product: polygalacturonase #status predicted <MAT>  
F:294/Active site: Asn #status predicted  
Query Match 1.7%; Score 7; DB 2; Length 363;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 13 FVLGALA 19  
Db 6 FVLGALA 12

RESULT 57  
T32526  
hypothetical protein CD4.5 - Caenorhabditis elegans  
C:Species: Caenorhabditis elegans  
C:Date: 29-Oct-1999 #sequence\_revision 29-Oct-1999 #text\_change 29-Oct-1999  
C:Accession: T32526  
R:Du, Z.; Scheet, P.  
submitted to the EMBL Data Library, December 1997  
A:Description: The sequence of C. elegans cosmid CD4.  
A:Reference number: Z21185  
A:Accession: T32526  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-378 <DUZ>  
A:Cross-references: EMBL:AF036694; PIDN:AB88343.1; GSPDB:GN00022; CESP:CD4.5  
A:Experimental source: strain Bristol N2; clone CD4  
C:Genetics:  
A:Gene: CESP:CD4.5  
A:Map position: 4  
A:Introns: 24/3; 108/3; 168/3; 214/2; 242/1; 288/3; 324/3; 352/1; 369/1

Query Match 1.7%; Score 7; DB 2; Length 378;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 201 KFFEEDG 207  
Db 147 KFFEEDG 153

RESULT 58  
T11892  
NADH2 dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 2 - sea anemone (Metridium senile)  
C:Species: mitochondrion Metridium senile (brown sea anemone, frilled sea anemone)  
C:Date: 16-Jul-1999 #sequence\_revision 16-Jul-1999 #text\_change 03-Jun-2002  
C:Accession: T11892  
R:Beagley, C.T.; Okimoto, R.; Wolstenholme, D.R.  
submitted to the EMBL Data Library, April 1997  
A:Reference number: Z17371  
A:Accession: T11892  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-385 <BEA>  
A:Cross-references: EMBL:AF000023; NID:g2920983; PID:g2920993; PIDN:AAC04638.1  
A:Experimental source: white color morph  
C:Genetics:  
A:Genome: mitochondrion  
A:Note: ND2  
C:Superfamily: NADH dehydrogenase (ubiquinone) chain 2  
C:Keywords: membrane-associated complex; mitochondrion; NAD; oxidative phosphorylation;  
Query Match 1.7%; Score 7; DB 2; Length 385;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 13 FVLGALA 19  
Db 66 FVLGALA 72

RESULT 59  
A86227  
hypothetical protein [imported] - Arabidopsis thaliana  
C:Species: Arabidopsis thaliana (mouse-ear cress)  
C:Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 31-Mar-2001  
C:Accession: A86227  
R:Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso  
Chen, C.W.; Hughes, M.K.; Conn, L.; Conway, A.R.; Conway, A.R.; Creasy, T.H.; Dewar, K.  
ansen, N.F.; Chung, M.K.; Conn, L.; Conway, A.R.; Conway, A.R.; Huizar, L.  
Nature 408, 816-820, 2000  
A:Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.  
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziali  
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.  
A:Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,  
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.  
A:Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.  
A:Reference number: A86141; MUID:21016719; PMID:11130712  
A:Accession: A86227  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-385 <STO>  
A:Cross-references: GB:AE005172; NID:g3482913; PIDN:AAC33198.1; GSPDB:GN00141  
C:Genetics:  
A:Map position: 1

Query Match 1.7%; Score 7; DB 2; Length 385;  
Best Local Similarity 100.0%; Pred. No. 1.1e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 91 NVKQNVV 97  
Db 47 NVKQNVV 53

RESULT 60  
F70231  
conserved hypothetical protein BGC06 - Lyme disease spirochete plasmid G/lp28-2  
C:Species: Borrelia burgdorferi (Lyme disease spirochete)  
C:Date: 13-Feb-1998 #sequence\_revision 13-Feb-1998 #text\_change 08-Oct-1999  
C:Accession: F70231  
R:Fraser, C.M.; Casjens, S.; Huang, W.M.; Sutton, G.G.; Clayton, R.; Lathigra, R.; Whit

son, D.; Peterson, J.; Kerlavage, A.R.; Quackenbush, J.; Salzberg, S.; Hanson, M.; Vugt, J.; Bowman, C.; Garland, S.; Fujii, C.; Cotton, M.D.; Horst, K.; Roberts, K.; Hatch, B.

Nature 390, 580-586, 1997  
A:Authors: Smith, H.O.; Venter, J.C.

A:Title: Genomic sequence of a Lyme disease spirochaete, *Borrelia burgdorferi*.

A:Reference number: A70100; MUID:98065943; PMID:9403685

C:Accession: F70231

A:Status: preliminary; nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-386 <KLE>

A:Cross-references: GB:AB000786; NID:G2690008; PIDN:AAC66054.1; PID:G2690011; TIGR:BBG06

A:Experimental source: strain B31

C:Genetics:

A:Genome: Plasmid

C:Superfamily: Lyme disease spirochaete plasmid conserved hypothetical protein BBG06

Query Match 1.7%; Score 7; DB 2; Length 386;

Best Local Similarity 100.0%; Pred. No. 1.1e+02; Indels 0; Gaps 0;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 85 LKKILSN 91

Db 248 LKKILSN 254

#### RESULT 61

T06997

probable glucose-6-phosphate/phosphate-translocator precursor - potato (fragment)

C:Species: Solanum tuberosum (potato)

C:Date: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change 26-May-2000

C:Accession: T06997

R:Kammerer, B.; Fischer, K.; Hilpert, B.; Schubert, S.; Gutensohn, M.; Weber, A.; Flugge

Plant Cell 10, 105-117, 1998

A:Title: Molecular characterization of a carbon transporter in plastids from heterotroph

A:Reference number: Z14280; MUID:98138061; PMID:9477574

A:Accession: T06997

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-393 <KAM>

A:Cross-references: EMBL:AF020816; NID:G2997592; PIDN:AAC08526.1; PID:G2997593

A:Experimental source: plastid inner envelope membrane

C:Genetics:

A:Gene: GPT

C:Function:

A:Description: mediates the antiport of glucose-6-phosphate against phosphate in plastid

C:Superfamily: triose phosphate/3-phosphoglycerate/phosphate translocator

C:Keywords: Chloroplast; sugar transport

F:1-73/Domain: transit peptide (chloroplast) #status predicted <TNP>

F:74-393/Product: glucose-6-phosphate/phosphate-translocator #status predicted <MAT>

Query Match

Best Local Similarity 1.7%; Score 7; DB 2; Length 393;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 7 SAVLSGF 13

Db 48 SAVLSGF 54

#### RESULT 62

JQ0113

2-keto-3-deoxygluconate permease - *Erwinia chrysanthemi*

C:Species: *Erwinia chrysanthemi*

C:Date: 07-Sep-1990 #sequence\_revision 07-Sep-1990 #text\_change 08-Oct-1999

C:Accession: JQ0113

R:Allen, C.; Reverchon, S.; Robert-Baudouy, J.

Gene 83, 233-241, 1989

A:Title: Nucleotide sequence of the *Erwinia chrysanthemi* gene encoding 2-keto-3-deoxyglu

A:Reference number: JQ0113; MUID:90060835; PMID:2684787

A:Accession: JQ0113

A:Molecule type: DNA

A:Residues: 1-398 <ALL>

A:Cross-references: GB:M31456; NID:G148421; PIDN:AAA83925.1; PID:G148422  
C:Comment: *Erwinia chrysanthemi* is a phytopathogenic bacterium that incites soft rot di

C:Genetics:

A:Gene: kdgT

Query Match 1.7%; Score 7; DB 2; Length 398;

Best Local Similarity 100.0%; Pred. No. 1.1e+02; Indels 0; Gaps 0;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 191 FSRVQVT 197

Db 254 FSRVQVT 260

#### RESULT 63

C71538

hypothetical protein C71538 - *Chlamydia trachomatis* (serotype D, strain UW3/Cx)

C:Species: *Chlamydia trachomatis*

C:Date: 13-Sep-1998 #sequence\_revision 13-Sep-1998 #text\_change 08-Oct-1999

C:Accession: C71538

R:Stephens, R.S.; Kalman, S.; Lammel, C.J.; Fan, J.; Marathe, R.; Aravind, L.; Mitchell

Science 282, 754-759, 1998

A:Title: Genome sequence of an obligate intracellular pathogen of humans: *Chlamydia tra*

A:Reference number: A71570; MUID:99000809; PMID:9784136

A:Accession: C71538

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-404 <ARN>

A:Cross-references: GB:AE001298; GB:AE001273; NID:G3328659; PIDN:AAC67850.1; PID:G33286

A:Experimental source: serotype D, strain UW-3/Cx

C:Genetics:

A:Gene: C71538

Query Match 1.7%; Score 7; DB 2; Length 404;

Best Local Similarity 100.0%; Pred. No. 1.1e+02; Indels 0; Gaps 0;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 92 VKKNVVG 98

Db 239 VKKNVVG 245

#### RESULT 64

AH0051

probable O-antigen biosynthesis protein YPO0417 [imported] - *Yersinia pestis* (strain CO

C:Species: *Yersinia pestis*

C:Date: 02-Nov-2001 #sequence\_revision 02-Nov-2001 #text\_change 02-Nov-2001

C:Accession: AH0051

R:Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prentice, M.B

deno-Tarraga, A.M.; Chillingworth, T.; Cronin, A.; Davies, R.M.; Davis, P.; Dougan, G.;

il, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.; Whitehead, S.; Barrell,

Nature 413, 523-527, 2001

A:Title: Genome sequence of *Yersinia pestis*, the causative agent of plague.

A:Reference number: AB0001; MUID:21470413; PMID:11586360

A:Accession: AH0051

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-410 <KUR>

A:Cross-references: GB:AL590842; PIDN:CAC89275.1; PID:G15978513; GSPDB:GN00175

C:Genetics:

A:Gene: YPO0417

Query Match 1.7%; Score 7; DB 2; Length 410;

Best Local Similarity 100.0%; Pred. No. 1.1e+02; Indels 0; Gaps 0;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 14 VLGAALF 20

Db 231 VLGAALF 237

#### RESULT 65

G70439

hypothetical protein aq\_1618 - Aquifex aeolicus  
 C:Species: Aquifex aeolicus  
 C>Date: 08-May-1998 #sequence\_revision 08-May-1998 #text\_change 05-Nov-1999  
 C:Accession: G70439  
 R:Decker, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.; Lenox, A.L.; Graham, D.E.; O'V.  
 Nature 392, 353-359, 1998  
 A>Title: The complete genome of the hyperthermophilic bacterium Aquifex aeolicus.  
 A:Reference number: A70300; MUID:98196666; PMID:9537320  
 A:Accession: G70439  
 A>Status: preliminary; nucleic acid sequence not shown; translation not shown  
 A:Molecule type: DNA  
 A:Residues: 1-413 <AOF>  
 A:Cross-references: GB:AE000748; NID:G2983960; PIDN:AAOC07516.1; PID:G2983969; GB:AE000655  
 A:Experimental source: strain VFS  
 C:Genetics:  
 A:Gene: aq\_1618

Query Match 1.7%; Score 7; DB 2; Length 413;  
 Best Local Similarity 100.0%; Pred. No. 1.2e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 87 KILSNVK 93  
 |||||  
 Db 368 KILSNVK 374

RESULT 66  
 F81320  
 transcription termination factor Cj1156 [imported] - Campylobacter jejuni (strain NCTC 1  
 C:Species: Campylobacter jejuni  
 C>Date: 31-Mar-2000 #sequence\_revision 31-Mar-2000 #text\_change 03-Jun-2002  
 C:Accession: F81320  
 R:Parkhill, J.; Wren, B.W.; Mungall, K.; Ketley, J.M.; Churcher, C.; Basham, D.; Chilling  
 C.W.; Quail, M.; Rajandream, M.A.; Rutherford, K.M.; VanVleet, A.; Whitehead, S.; Barrel  
 Nature 403, 665-668, 2000  
 A>Title: The genome sequence of the food-borne pathogen Campylobacter jejuni reveals hyp  
 A:Reference number: A81250; MUID:20150912; PMID:10688204  
 A:Accession: F81320  
 A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-432 <PAR>  
 A:Cross-references: GB:AL111168; NID:G6968444; PIDN:CA873410.1; PID:G696858  
 A:Experimental source: serotype O2, strain NCTC 11186  
 C:Genetics:  
 A:Gene: rho; Cj1156  
 C:Superfamily: transcription termination factor rho  
 C:Keywords: transcription termination

Query Match 1.7%; Score 7; DB 2; Length 432;  
 Best Local Similarity 100.0%; Pred. No. 1.2e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 48 SQMDVVE 54  
 |||||  
 Db 402 SQMDVVE 408

RESULT 67  
 A11015  
 probable exported protein STY4438 [imported] - Salmonella enterica subsp. enterica serov  
 C:Species: Salmonella enterica subsp. enterica serovar Typhi  
 A:Note: This species has also been called Salmonella typhi  
 C>Date: 09-Nov-2001 #sequence\_revision 09-Nov-2001 #text\_change 18-Nov-2002  
 C:Accession: A11015  
 R:Parkhill, J.; Dougan, G.; James, K.D.; Thomson, N.R.; Pickard, D.; Wain, J.; Churcher,  
 th, T.; Connor, P.; Cronin, A.; Davis, P.; Davies, R.M.; Dowd, L.; White, N.; Farrar,  
 S.; Moule, S.; O'Gaora, P.  
 Nature 413, 848-852, 2001  
 A:Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.; Skelton, J.; Stevens, K.;  
 A>Title: Complete genome sequence of a multiple drug resistant Salmonella enterica serov  
 A:Reference number: AB0502; MUID:21534947; PMID:11677608  
 A:Accession: A11015

A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-436 <PAR>  
 A:Cross-references: GB:AL513382; PIDN:CAD09226.1; PID:G16505230; GSPDB:GN00176  
 C:Genetics:  
 A:Gene: STY4438  
 C:Superfamily: Vibrio cholerae hypothetical protein VCA0738

Query Match 1.7%; Score 7; DB 2; Length 436;  
 Best Local Similarity 100.0%; Pred. No. 1.2e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 VVDNLTL 325  
 |||||  
 Db 100 VVDNLTL 106

RESULT 68  
 G82777  
 glutamate symport protein XF0656 [imported] - Xylella fastidiosa (strain 9a5c)  
 C:Species: Xylella fastidiosa  
 C>Date: 18-Aug-2000 #sequence\_revision 20-Aug-2000 #text\_change 02-Sep-2000  
 C:Accession: G82777  
 R:anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequ  
 Nature 406, 151-157, 2000  
 A>Title: The genome sequence of the plant pathogen Xylella fastidiosa.  
 A:Reference number: A82515; MUID:20365717; PMID:10910347  
 A:Note: for a complete list of authors see reference number A59328 below  
 A:Accession: G82777  
 A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-437 <SIM>  
 A:Cross-references: GB:AE003910; GB:AE003849; NID:G9105532; PIDN:AAF83466.1; GSPDB:GN00  
 R:Simpson, A.J.G.; Reinach, P.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.;  
 Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, D.M.; Carriaro, D.M.; Carre,  
 as-Neto, E.; Docena, C.; El-Dorri, H.; Pacinani, A.P.; Ferreira, A.J.S.  
 submitted to GenBank, June 2000  
 A:Authors: Ferreira, V.C.A.; Ferro, J.A.; Praga, J.S.; Franca, S.C.; Franco, M.C.; Froh  
 J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laig  
 chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins,  
 A:Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.  
 P.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.;  
 Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasa  
 A:Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silve  
 M.; Tshako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.;  
 A:Reference number: A59328  
 A:Contents: annotation  
 C:Genetics:  
 A:Gene: XF0656  
 C:Superfamily: Bacillus subtilis sodium-glutamate symporter homolog yhcL

Query Match 1.7%; Score 7; DB 2; Length 437;  
 Best Local Similarity 100.0%; Pred. No. 1.2e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 12 GFVLGAL 18  
 |||||  
 Db 19 GFVLGAL 25

RESULT 69  
 T21042  
 hypothetical protein F17A2.3 - Caenorhabditis elegans  
 C:Species: Caenorhabditis elegans  
 C>Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 18-Feb-2000  
 C:Accession: T21042  
 R:Lloyd, C.  
 submitted to the EMBL Data Library, November 1995  
 A:Reference number: Z19364  
 A:Accession: T21042  
 A>Status: preliminary; translated from GB/EMBL/DBJ  
 A:Molecule type: DNA

C;Superfamily: dihydrolipoamide dehydrogenase; dihydrolipoamide dehydrogenase homology  
C;Keywords: FAD; flavoprotein; lipoamide; NAD; oxidoreductase; redox-active disulfide;  
F;11-39/Region: beta-alpha-beta FAD nucleotide-binding fold  
F;13-458/Domain: dihydrolipoamide dehydrogenase homology <BDP>  
F;181-209/Region: beta-alpha-beta NAD nucleotide-binding fold  
F;47-52/Disulfide bonds: redox-active #status predicted

Query Match 1.7%; Score 7; DB 1; Length 475;  
Best Local Similarity 100.0%; Pred. No. 1.3e+02; Indels 0;  
Matches 7; Conservative 0; Mismatches 0; Gaps 0;

QY 11 SGFVLGA 17  
|||||  
Db 411 SGFVLGA 417

RESULT 72  
T47480  
Hypothetical protein F18N11.160 - Arabidopsis thaliana  
C;Species: Arabidopsis thaliana (mouse-ear cress)  
C;Date: 20-Apr-2000 #sequence\_revision 20-Apr-2000 #text\_change 20-Apr-2000  
C;Accession: T47480  
R;Jordan, N.; Bangert, S.; Wiedelmann, R.; Voss, H.; Unsel, M.; Mewes, H.W.; Lemcke, K  
submitted to the Protein Sequence Database, February 2000  
A;Reference number: Z24467  
A;Accession: T47480  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-475 <JOR>  
A;Cross-references: EMBL:AL132953  
A;Experimental source: cultivar Columbia; BAC clone F18N11  
C;Genetics:  
A;Map position: 3  
A;Introns: 290/3  
A;Note: F18N11.160

Query Match 1.7%; Score 7; DB 2; Length 475;  
Best Local Similarity 100.0%; Pred. No. 1.3e+02; Indels 0;  
Matches 7; Conservative 0; Mismatches 0; Gaps 0;

QY 60 DIQYIP 66  
|||||  
Db 112 DIQYIP 118

RESULT 73  
S51669  
GCD10 protein - yeast (Saccharomyces cerevisiae)  
N;Alternate names: protein N2422; protein YNL062c  
C;Species: Saccharomyces cerevisiae  
C;Date: 05-May-1995 #sequence\_revision 21-Jul-1995 #text\_change 23-Oct-1999  
C;Accession: S51669; S58716; S62990  
R;Garcia-Barrio, M.T.; Cuesta, R.; Hinnebusch, A.G.; Tamame Gonzalez, M.  
submitted to the EMBL Data Library, December 1994  
A;Reference number: S51669  
A;Accession: S51669  
A;Molecule type: DNA  
A;Residues: 1-478 <GAR>  
A;Cross-references: EMBL:X83511; NID:g603584; PIDN:CAA58501.1; PID:g603585  
R;Bergsz, P.; Doignon, F.; Crouzet, M.  
Yeast 11, 967-974, 1995  
A;Title: The sequence of a 44 420 bp fragment located on the left arm of chromosome XIV  
A;Reference number: S58711; MUID:96021608; PMID:8533472  
A;Accession: S58716  
A;Status: nucleic acid sequence not shown; translation not shown  
A;Molecule type: DNA  
A;Residues: 132-478 <BER>  
A;Cross-references: EMBL:U12141  
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, July 1994  
R;Bergsz, P.; Doignon, F.; Crouzet, M.  
submitted to the Protein Sequence Database, April 1996  
A;Reference number: S62975  
A;Accession: S62990

A;Residues: 1-463 <WIL>  
A;Cross-references: EMBL:Z68114; PIDN:CAA92158.1; GSPDB:GNC0028; CBSP:F17A2.3  
A;Experimental source: clone F17A2  
C;Genetics:  
A;Gene: CBSP:F17A2.3  
A;Map position: X  
A;Introns: 34/3; 148/3; 183/2; 212/1; 436/1

Query Match 1.7%; Score 7; DB 2; Length 463;  
Best Local Similarity 100.0%; Pred. No. 1.3e+02; Indels 0;  
Matches 7; Conservative 0; Mismatches 0; Gaps 0;

QY 332 IPEASPA 338  
|||||  
Db 347 IPEASPA 353

RESULT 70  
A86465  
Hypothetical protein F12G12.8 [imported] - Arabidopsis thaliana  
C;Species: Arabidopsis thaliana (mouse-ear cress)  
C;Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 31-Dec-2001  
C;Accession: A86465  
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso,  
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, T.H.; Dewar, K.;  
ansen, N.F.; Hughes, B.; Huizar, L.  
Nature 408, 816-820, 2000  
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.  
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziani,  
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.  
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon,  
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.  
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.  
A;Reference number: A86141; MUID:21016719; PMID:11130712  
A;Accession: A86465  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-471 <STO>  
A;Cross-references: GB:AB005172; NID:gl0086467; PIDN:AAG12527.1; GSPDB:GN00141  
C;Genetics:  
A;Map position: 1

Query Match 1.7%; Score 7; DB 2; Length 471;  
Best Local Similarity 100.0%; Pred. No. 1.3e+02; Indels 0;  
Matches 7; Conservative 0; Mismatches 0; Gaps 0;

QY 133 LLLTFSI 139  
|||||  
Db 194 LLLTFSI 200

RESULT 71  
A56824  
dihydrolipoamide dehydrogenase (EC 1.8.1.4) - Haloferax volcanii  
C;Species: Haloferax volcanii  
C;Date: 18-Aug-1995 #sequence\_revision 10-May-1996 #text\_change 11-Jun-1999  
C;Accession: A56824  
R;Vettakkorumankav, N.N.; Stevenson, K.J.  
Biochem. Cell Biol. 70, 656-663, 1992  
A;Title: Dihydrolipoamide dehydrogenase from Haloferax volcanii: gene cloning, complete  
A;Reference number: A56824; MUID:93119588; PMID:1339281  
A;Accession: A56824  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-475 <VET>  
A;Cross-references: GB:I09733; NID:gl49019; PIDN:AAV72340.1; PID:gl49020  
A;Note: sequence extracted from NCBI backbone (NCBI:122030, NCBI:P:122031)  
C;Complex: dimer of identical chains containing a noncovalently bound FAD and a redox-ac  
onents are pyruvate dehydrogenase and dihydrolipoamide acetyltransferase) and oxoglutar  
ase)  
C;Function:  
A;Description: catalyzes the oxidation dihydrolipoamide to lipoamide using NAD acceptor;  
nd pyruvate with the formation of succinyl-CoA and acetyl-CoA, respectively



A:Molecule type: DNA  
A:Residues: 1-478 <BEH>  
A:Cross-references: EMBL:Z71338; NID:gl301936; PID:CAA95935.1; PID:e239899; PID:gl30193  
A:Experimental source: strain S288C  
C:Genetics:  
A:Gene: SGD:GDC10  
A:Cross-references: SGD:S0005006; MIPS:YNL062c  
A:Map position: 14L

Query Match 1.7%; Score 7; DB 2; Length 478;

Best Local Similarity 100.0%; Pred. No. 1.3e+02; Mismatches 0; Indels 0; Gaps 0;

QY 392 EEIEKWK 398

DB 142 EEIEKWK 148

#### RESULT 74

F81220  
NADH dehydrogenase I, N chain NMB0259 [imported] - Neisseria meningitidis (strain MC58 s  
C:Species: Neisseria meningitidis  
C:Date: 31-Mar-2000 #sequence\_revision 31-Mar-2000 #text\_change 19-Jan-2001  
C:Accession: F81220

R:Peterson, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, J.A  
Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.A.;  
ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Maignani, V.; Pizze, M.  
Science 287, 1809-1815, 2000

A:Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; Ve  
A:Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.  
A:Reference number: A81000; MUID:20175755; PMID:10710307

A:Accession: F81220

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-480 <TE>

A:Cross-references: GB:AE002382; GB:AE002098; NID:g7225470; PIDN:AAF40713.1; PID:g722548

A:Experimental source: serogroup B, strain MC58

C:Genetics:

A:Gene: NMB0259

C:Superfamily: NADH dehydrogenase (ubiquinone) chain 2

Query Match

Best Local Similarity 1.7%; Score 7; DB 2; Length 480;

Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 13 FVLGALA 19

DB 163 FVLGALA 169

#### RESULT 75

G81796  
NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain N NMA2228 [imported] - Neisseria men  
C:Species: Neisseria meningitidis  
C:Date: 05-May-2000 #sequence\_revision 05-May-2000 #text\_change 03-Jun-2002

C:Accession: G81796

R:Parkhill, J.; Achtman, M.; James, K.D.; Bentley, S.D.; Churcher, C.; Klee, S.R.; Morel  
; Holroyd, S.; Jagels, K.; Leather, S.; Moule, S.; Mungall, K.; Quail, M.A.; Rajandream,  
Nature 404, 502-506, 2000

A:Title: Complete DNA sequence of a serogroup A strain of Neisseria meningitidis Z2491.

A:Reference number: A81775; MUID:20222556; PMID:10761919

A:Accession: G81796

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-481 <PAR>

A:Cross-references: GB:AL162758; GB:AL157959; NID:g7380672; PIDN:CAB85439.1; PID:g738084

A:Experimental source: serogroup A, strain Z2491

C:Genetics:

A:Gene: nuoN; NMA2228

C:Superfamily: NADH dehydrogenase (ubiquinone) chain 2

C:Keywords: NAD; oxidoreductase

Query Match

1.7%; Score 7; DB 2; Length 481;

Best Local Similarity 100.0%; Pred. No. 1.3e+02; Mismatches 0; Indels 0; Gaps 0;

QY 13 FVLGALA 19

DB 163 FVLGALA 169

#### RESULT 76

F71210

hypothetical protein PH1950 - Pyrococcus horikoshii

C:Species: Pyrococcus horikoshii

C:Date: 14-Aug-1998 #sequence\_revision 14-Aug-1998 #text\_change 21-Jul-2000

C:Accession: F71210

R:Kawarabayashi, Y.; Sawada, M.; Horikawa, H.; Haikawa, Y.; Hino, Y.; Yamamoto, S.; Seki

M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudo, Y.; Yamazaki, J.; Kushida, N.; Oguch

DNA Res. 5, 55-76, 1998

A:Title: Complete sequence and gene organization of the genome of a hyper-thermophilic

A:Reference number: A71000; MUID:98344137; PMID:9679194

A:Accession: F71210

A:Status: preliminary; nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA

A:Residues: 1-483 <KAW>

A:Cross-references: GB:AP000007; NID:g3236134; PIDN:BAA31077.1; PID:g3258394

A:Experimental source: strain OT3

A:Note: this accession replaces an interim accession for a sequence replaced by GenBank

C:Genetics:

A:Gene: PH1950

C:Superfamily: Thermotoga maritima hypothetical protein MTH1256

Query Match

1.7%; Score 7; DB 2; Length 483;

Best Local Similarity 100.0%; Pred. No. 1.3e+02; Mismatches 0; Indels 0; Gaps 0;

QY 129 DLVFLLL 135

DB 255 DLVFLLL 261

#### RESULT 77

F89933

hypothetical protein SAI365 [imported] - Staphylococcus aureus (strain N315)

C:Species: Staphylococcus aureus

C:Date: 10-May-2001 #sequence\_revision 10-May-2001 #text\_change 09-Dec-2002

C:Accession: F89933

R:Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; Ogu

ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, K.;

C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayaashi, H.; Hiramatsu, K.

Lancet 357, 1225-1240, 2001

A:Title: Whole genome sequencing of methicillin-resistant Staphylococcus aureus.

A:Reference number: A89758; MUID:21311952; PMID:11418146

A:Accession: F89933

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-490 <KUR>

A:Cross-references: GB:BA000018; PID:gl3701333; PIDN:BA842627.1; GSPDB:GN00149

A:Experimental source: strain N315

C:Genetics:

A:Gene: SAI365

C:Superfamily: glycine dehydrogenase (decarboxylating)

Query Match

1.7%; Score 7; DB 2; Length 490;

Best Local Similarity 100.0%; Pred. No. 1.3e+02; Mismatches 0; Indels 0; Gaps 0;

QY 221 SLOELK 227

DB 119 SLOELK 125

#### RESULT 78

A28582

tyrosine 3-monooxygenase (EC 1.14.16.2) - quail



N/Alternate names: tyrosine 3-hydroxylase  
C/Species: Phasianidae Gen. sp. (quail)  
C/Date: 19-Nov-1998 #sequence\_revision 19-Nov-1998 #text\_change 31-Mar-2000  
C/Accession: A28582; PH1524  
R/Fauquet, M.; Grima, B.; Lamouroux, A.; Mallet, J.  
J. Neurochem. 50, 142-148, 1988  
A/Title: Cloning of quail tyrosine hydroxylase: amino acid homology with other hydroxylase  
A/Reference number: A28582; MUID:88089590; PMID:2447231  
A/Accession: A28582  
A/Molecule type: mRNA  
A/Residues: 1-491 <FAU>  
A/Cross-references: GB:M24778; NID:g213649; PIDN:AAA49514.1; PID:g213650  
R/Fauquet, M.; Boni, C.  
J. Neurochem. 60, 274-281, 1993  
A/Title: The quail tyrosine hydroxylase gene promoter contains an active cyclic AMP-resp  
A/Reference number: PH1524; MUID:93107923; PMID:8093261  
A/Accession: PH1524  
A/Molecule type: DNA  
A/Residues: 1-30 <FA2>  
C/Superfamily: phenylalanine 4-monooxygenase  
C/Keywords: biotin; catecholamine biosynthesis; iron; metalloprotein; oxidoreductase;  
F324,329,369/Binding site: iron (His, His, Glu) #status predicted

Query Match 1.7%; Score 7; DB 2; Length 491;  
Best Local Similarity 100.0%; Pred. No. 1.4e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 390 TDEIEK 396  
DB 353 TDEIEK 359

RESULT 79  
T16417  
Hypothetical protein F52C9.5 - Caenorhabditis elegans  
C/Species: Caenorhabditis elegans  
C/Date: 20-Sep-1999 #sequence\_revision 20-Sep-1999 #text\_change 04-Mar-2000  
C/Accession: T16417  
R/Favallo, T.  
submitted to the EMBL Data Library, November 1995  
A/Description: The sequence of C. elegans cosmid F52C9.  
A/Reference number: Z18511  
A/Accession: T16417  
A/Molecule type: DNA  
A/Residues: 1-498 <FAV>  
A/Cross-references: EMBL:U39850; NID:g1055052; PID:g1055053; PIDN:AAA81055.1; CESP:F52C9  
C/Genetics:  
A/Gene: CESP:F52C9.5  
A/Introns: 45/2; 87/3; 132/1; 185/3; 207/1; 294/3; 337/1; 381/3; 430/1  
C/Superfamily: Caenorhabditis elegans hypothetical protein F52C9.5

Query Match 1.7%; Score 7; DB 2; Length 498;  
Best Local Similarity 100.0%; Pred. No. 1.4e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 357 FKSRLL 363  
DB 491 FKSRLL 497

RESULT 80  
D82081  
UDP-N-acetylmuramate-alanine ligase VC2400 [imported] - Vibrio cholerae (strain N16961)  
C/Species: Vibrio cholerae  
C/Date: 18-Aug-2000 #sequence\_revision 20-Aug-2000 #text\_change 02-Feb-2001  
C/Accession: D82081  
R/Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.J.;  
Chardson, D.; Ermolaeva, M.D.; Vamathevan, J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers, B.  
1, R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.  
Nature 406, 477-483, 2000  
A/Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.  
A/Reference number: A82035; MUID:20406833; PMID:10952301

A/Accession: D82081  
A/Status: preliminary  
A/Molecule type: DNA  
A/Residues: 1-506 <HEI>  
A/Cross-references: GB:AE003852; NID:g9656963; PIDN:AAF95543.1; GSPDB:GN00  
A/Experimental source: serogroup O1; strain N16961; biotype El Tor  
C/Genetics:  
A/Gene: VC2400  
A/Map position: 1  
C/Superfamily: UDP-N-acetylmuramate-alanine ligase

Query Match 1.7%; Score 7; DB 2; Length 506;  
Best Local Similarity 100.0%; Pred. No. 1.4e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 262 IQAREK 268  
DB 118 IQAREK 124

RESULT 81  
T01870  
Probable pectinesterase (EC 3.1.1.11) - Arabidopsis thaliana  
N/Alternate names: protein T24M8.6  
C/Species: Arabidopsis thaliana (mouse-ear cress)  
C/Date: 26-Feb-1999 #sequence\_revision 26-Feb-1999 #text\_change 26-Aug-1999  
C/Accession: T01870  
R/Latrelle, P.; Elliott, G.; Le, T.  
submitted to the EMBL Data Library, August 1998  
A/Description: The sequence of A. thaliana T24M8.  
A/Reference number: Z14449  
A/Accession: T01870  
A/Status: translated from GB/EMBL/DBJ  
A/Molecule type: DNA  
A/Residues: 1-536 <LAT>  
A/Cross-references: EMBL:AF077409; NID:g3319365; PID:g3319371  
A/Experimental source: cultivar Columbia  
C/Genetics:  
A/Map position: 4  
A/Introns: 208/3; 298/1  
A/Note: T24M8.6  
C/Superfamily: pectinesterase  
C/Keywords: carboxylic ester hydrolase

Query Match 1.7%; Score 7; DB 2; Length 536;  
Best Local Similarity 100.0%; Pred. No. 1.5e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 82 EQALKKI 88  
DB 208 EQALKKI 214

RESULT 82  
T44683  
Precorrin methylase (EC 2.1.1.-) [imported] - Bacillus megaterium  
C/Species: Bacillus megaterium  
C/Date: 21-Jan-2000 #sequence\_revision 21-Jan-2000 #text\_change 21-Jul-2000  
C/Accession: T44683  
R/Raux, E.; Lanois, A.; Warren, M.J.; Rambach, A.; Thermes, C.  
Biochem. J. 335, 159-166, 1998  
A/Title: Cobalamin (vitamin B12) biosynthesis: identification and characterization of a  
A/Reference number: Z22829; MUID:98416126; PMID:9742225  
A/Accession: T44683  
A/Status: preliminary; translated from GB/EMBL/DBJ  
A/Molecule type: DNA  
A/Residues: 1-540 <RAU>  
A/Cross-references: EMBL:AJ000759; NID:g3724036; PIDN:CAA04307.1; PID:g3724038  
A/Experimental source: strain DSM 509  
C/Genetics:  
A/Note: cbiH60  
C/Keywords: methyltransferase

Query Match 1.7%; Score 7; DB 2; Length 540;  
Best Local Similarity 100.0%; Pred. No. 1.5e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 3 GESTSAV 9  
|||  
DB 313 GESTSAV 319  
|||

RESULT 83  
F72268  
ABC transporter, ATP-binding protein - Thermotoga maritima (strain MSB8)  
C/Species: Thermotoga maritima  
C/Date: 11-Jun-1999 #sequence\_revision 11-Jun-1999 #text\_change 21-Jul-2000  
C/Accession: F72268  
R/Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwin, M.L.; Dodson, R.J.; Haft, D.H.; Hickey  
Garrett, M.M.; Stewart, A.M.; Cotton, M.D.; Pratt, M.S.; Phillips, C.A.; Richardson, D.;  
C.M.

Nature 399, 323-329, 1999  
A/Title: Evidence for lateral gene transfer between Archaea and Bacteria from genome seq  
A/Reference number: A72200; PMID:99287316; PMID:10360571  
A/Accession: F72268  
A/Status: preliminary  
A/Molecule type: DNA  
A/Residues: 1-564 <ARN>  
A/Cross-references: GB:AE001786; GB:AE000512; NID:94981873; PIDN:AAD36392.1; PID:9498187  
A/Experimental source: strain MSB8  
C/Genetics:  
A/Gene: TM1319  
C/Suprafamily: unassigned ATP-binding cassette proteins; ATP-binding cassette homology

Query Match 1.7%; Score 7; DB 2; Length 564;  
Best Local Similarity 100.0%; Pred. No. 1.5e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 130 LVFLLT 136  
|||  
DB 62 LVFLLT 68  
|||

RESULT 84  
F82595  
glutathione-regulated potassium efflux system protein XF2140 [imported] - Xylella fastidiosa  
C/Species: Xylella fastidiosa  
C/Date: 18-Aug-2000 #sequence\_revision 20-Aug-2000 #text\_change 17-Nov-2000  
C/Accession: F82595  
R/Anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequen  
Nature 406, 151-157, 2000  
A/Title: The genome sequence of the plant pathogen Xylella fastidiosa.  
A/Reference number: A82515; PMID:20365717; PMID:10910347  
A/Note: for a complete list of authors see reference number A59328 below  
A/Accession: F82595  
A/Status: preliminary  
A/Molecule type: DNA  
A/Residues: 1-572 <SIM>  
A/Cross-references: GB:AE004028; GB:AE003849; NID:G9107266; PIDN:AAF84939.1; GSPDB:GN001  
A/Experimental source: strain 945C  
R/Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; A  
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrier, H  
as-Neco, E.; Docena, C.; El-Dorry, H.; Facinani, A.P.; Ferreira, A.J.S.  
submitted to GenBank, June 2000  
A/Authors: Ferreira, V.C.A.; Ferro, J.A.; Frega, J.S.; Franca, S.C.; Franco, M.C.; Frohm  
J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laig  
chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, E  
A/Authors: Martins, L.R.; Oliveira, M.A.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.;  
F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A  
Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasak  
A/Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silveir  
M.; Teuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Z  
A/Reference number: A59328  
A/Contents: annotation  
C/Genetics:  
A/Gene: XF2140

C/Suprafamily: glutathione-regulated potassium efflux system protein kefc  
Query Match 1.7%; Score 7; DB 2; Length 572;  
Best Local Similarity 100.0%; Pred. No. 1.6e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 13 FVLGALA 19  
|||  
DB 19 FVLGALA 25  
|||

RESULT 85  
AC2395  
ATP-binding protein of ABC transporter alr4715 [imported] - Nostoc sp. (strain PCC 7120  
C/Species: Nostoc sp. PCC 7120  
A/Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120  
C/Date: 14-Dec-2001 #sequence\_revision 14-Dec-2001 #text\_change 09-Dec-2002  
C/Accession: AC2395  
R/Xaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguch  
Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata,  
DNA Res. 8, 205-213, 2001  
A/Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium An  
A/Reference number: AB1807; PMID:21595285; PMID:11759840  
A/Accession: AC2395  
A/Status: preliminary  
A/Molecule type: DNA  
A/Residues: 1-583 <KUR>  
A/Cross-references: GB:BA000019; PIDN:BA876414.1; PID:G17133852; GSPDB:GN00179  
A/Experimental source: strain PCC 7120  
C/Genetics:  
A/Gene: alr4715  
C/Suprafamily: Escherichia coli ABC transporter mdla; ATP-binding cassette homology

Query Match 1.7%; Score 7; DB 2; Length 583;  
Best Local Similarity 100.0%; Pred. No. 1.6e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 34 LGEVKGE 40  
|||  
DB 333 LGEVKGE 339  
|||

RESULT 86  
AD2594  
hypothetical protein cysJ [imported] - Agrobacterium tumefaciens (strain C58, Dupont)  
C/Species: Agrobacterium tumefaciens  
C/Date: 11-Jan-2002 #sequence\_revision 11-Jan-2002 #text\_change 18-Nov-2002  
C/Accession: AD2594  
R/Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo,  
erage, G.; Gillet, W.; Grant, C.; Guenther, D.; Kutyavin, T.; Levy, R.; Li, M.; McClell  
; Karp, P.; Romero, P.; Zhang, S.  
Science 294, 2317-2323, 2001  
A/Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,  
ster, E.W.  
A/Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.  
A/Reference number: AB2577; PMID:21608550; PMID:11741193  
A/Accession: AD2594  
A/Status: preliminary  
A/Molecule type: DNA  
A/Residues: 1-589 <KUR>  
A/Cross-references: GB:AE008688; PIDN:AAL41170.1; PID:G17738469; GSPDB:GN00186  
A/Experimental source: strain C58 (Dupont)  
C/Genetics:  
A/Gene: cysJ  
A/Map position: circular chromosome  
C/Suprafamily: sulfite reductase (NADPH); flavodoxin homology; NADPH-ferrihemoprotein r  
C/Keywords: flavoprotein

Query Match 1.7%; Score 7; DB 2; Length 589;  
Best Local Similarity 100.0%; Pred. No. 1.6e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 247 VNRLKRE 253  
|||

Db 575 VNRLKRE 581  
 |||||  
 RESULT 87  
 E97376  
 C:Species: Agrobacterium tumefaciens (strain C59)  
 C:Date: 30-Sep-2001 #sequence\_revision 30-Sep-2001 #text\_change 18-Nov-2002  
 C:Accession: E97376  
 A:Goodman, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Woliam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.; Science 294, 2323-2328, 2001  
 A>Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tumefaciens  
 A:Reference number: A97359; MUID:21608551; PMID:11743194  
 A:Accession: E97376  
 A>Status: preliminary  
 A:Molecule type: DNA  
 A:Residues: 1-589 <KUR>  
 A:Cross-references: GB:AE007869; PIDN:AAK85966.1; PID:GL5155025; GSPDB:GN00169  
 C:Genetics:  
 A:Map position: circular chromosome  
 C:Superfamily: sulfite reductase (NADPH); flavodoxin homology; NADPH-ferrithemoprotein reductase  
 C:Keywords: flavoprotein  
 Query Match 1.7%; Score 7; DB 2; Length 589;  
 Best Local Similarity 100.0%; Pred. No. 1.6e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 247 VNRLKRE 253  
 |||||  
 Db 575 VNRLKRE 581  
 |||||  
 RESULT 88  
 S28036  
 C:Species: Streptococcus pneumoniae  
 C:Date: 17-Apr-1993 #sequence\_revision 17-Apr-1993 #text\_change 26-May-2000  
 C:Accession: S28036  
 R:Martin, C.; Sibold, C.; Hakenbeck, R.  
 EMBO J. 11, 3831-3836, 1992  
 A>Title: Relatedness of penicillin-binding protein 1a genes from different clones of penicillin-binding protein 1a - Streptococcus pneumoniae (strain 8250) (fragment)  
 A:Reference number: S28031; MUID:93010977; PMID:1396576  
 A:Accession: S28036  
 A>Status: translation not shown  
 A:Molecule type: DNA  
 A:Residues: 1-608 <MAR>  
 A:Cross-references: EMBL:X67871; NID:g47415; PIDN:CAA48071.1; PID:g47416  
 C:Superfamily: penicillin-binding protein 1B  
 Query Match 1.7%; Score 7; DB 2; Length 608;  
 Best Local Similarity 100.0%; Pred. No. 1.6e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 390 TDEIEK 396  
 |||||  
 Db 564 TDEIEK 570  
 |||||  
 RESULT 89  
 G70039  
 C:Species: Bacillus subtilis  
 C:Date: 05-Dec-1997 #sequence\_revision 05-Dec-1997 #text\_change 20-Jun-2000  
 C:Accession: G70039  
 R:Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bertero, C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chai, A.; Ehrlich, S.D.; Emerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.; Nature 390, 249-256, 1997  
 A:Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallier, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hulio, M.F.;

Koetter, P.; Koningsstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A.; Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mauee, Y. M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetell, Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A.; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Sero, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, A.; Authors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.  
 A>Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.  
 A:Reference number: A69580; MUID:98044033; PMID:9384377  
 A:Accession: G70039  
 A>Status: preliminary; nucleic acid sequence not shown; translation not shown  
 A:Molecule type: DNA  
 A:Residues: 1-617 <KUN>  
 A:Cross-references: GS:Z99121; GB:AL009126; NID:g2635827; PIDN:CAB15341.1; PID:g2635849  
 A:Experimental source: strain 168  
 C:Genetics:  
 A:Gene: yvgJ  
 C:Superfamily: Bacillus subtilis probable anion-binding protein yfE  
 Query Match 1.7%; Score 7; DB 2; Length 617;  
 Best Local Similarity 100.0%; Pred. No. 1.7e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 129 DLVFLLL 135  
 |||||  
 Db 128 DLVFLLL 134  
 |||||  
 RESULT 90  
 H69590  
 asparagine synthetase asnB - Bacillus subtilis  
 C:Species: Bacillus subtilis  
 C:Date: 05-Dec-1997 #sequence\_revision 05-Dec-1997 #text\_change 20-Jun-2000  
 C:Accession: H69590  
 R:Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bertero, C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chai, A.; Ehrlich, S.D.; Emerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E.; Nature 390, 249-256, 1997  
 A:Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Gallier, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hulio, M.F.; Koetter, P.; Koningsstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A.; Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mauee, Y. M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetell, Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A.; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Sero, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, A.; Authors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.  
 A>Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.  
 A:Reference number: A69580; MUID:98044033; PMID:9384377  
 A:Accession: H69590  
 A>Status: preliminary; nucleic acid sequence not shown; translation not shown  
 A:Molecule type: DNA  
 A:Residues: 1-632 <KUN>  
 A:Cross-references: GB:Z99119; GB:AL009126; NID:g2635411; PIDN:CAB15032.1; PID:g2635538  
 A:Experimental source: strain 168  
 C:Genetics:  
 A:Gene: asnB  
 C:Superfamily: asparagine synthase (glutamine-hydrolyzing)

Query Match 1.7%; Score 7; DB 2; Length 632;  
 Best Local Similarity 100.0%; Pred. No. 1.7e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 24 NTDSDE 30  
 |||||  
 Db 98 NTDSDE 104  
 |||||  
 RESULT 91  
 D72605  
 probable long-chain-fatty-acid-CoA ligase (EC 6.2.1.3) APE1307 [similarity] - Aeropyrum

C:Species: Aeropyrum pernix  
C:Date: 20-Aug-1999 #sequence\_revision 20-Aug-1999 #text\_change 03-Jun-2002  
C:Accession: D72605  
R:Kawarayashi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Hainaka, Y.; Jin-no, K.; Takah  
awa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudo, Y.; Yamazaki, J.; K  
DNA Res. 6, 83-101, 1999  
A:Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aeropyr  
A:Reference number: A72450; MUID:99310339; PMID:10382966  
A:Accession: D72605  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-651 <KAW>  
A:Cross-references: DDBJ:AP000061; NID:95104821; PIDN:BAA80298.1; PID:G5104984  
A:Experimental source: strain K1  
C:Genetics:  
A:Gene: APE1307  
C:Superfamily: Synchocystis long-chain-fatty-acid-CoA ligase; acetate-CoA ligase homolog  
F/71-606/Domain: acetate-CoA ligase homology <ACL>

Query Match 1.7%; Score 7; DB 2; Length 651;  
Best Local Similarity 100.0%; Pred. No. 1.7e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 250 LKREIEK 256  
Db 561 LKREIEK 567

RESULT 92  
E82954  
conserved hypothetical protein PA5544 [imported] - Pseudomonas aeruginosa (strain PA01)  
C:Species: Pseudomonas aeruginosa  
C:Date: 15-Sep-2000 #sequence\_revision 15-Sep-2000 #text\_change 31-Dec-2000  
C:Accession: E82954  
R:Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warren, P.; Hickey, M.J.; B  
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Latbig, K.; Lim,  
.; Lory, S.; Olson, M.V.  
Nature 406, 959-964, 2000  
A:Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho  
A:Reference number: A82950; MUID:20437337; PMID:10984043  
A:Accession: E82954  
A:Status: preliminary  
A:Molecule type: DNA  
A:Residues: 1-674 <STO>  
A:Cross-references: GB:AE004966; GB:AE004091; NID:99951872; PIDN:AAG08929.1; GSPDB:GN001  
A:Experimental source: strain PA01  
C:Genetics:  
A:Gene: PA5544

Query Match 1.7%; Score 7; DB 2; Length 674;  
Best Local Similarity 100.0%; Pred. No. 1.8e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 12 GFVLGAL 18  
Db 652 GFVLGAL 658

RESULT 93  
E69135  
coenzyme F420-reducing hydrogenase, beta subunit homolog - Methanobacterium thermoautot  
C:Species: Methanobacterium thermoautotrophicum  
C:Date: 05-Dec-1997 #sequence\_revision 05-Dec-1997 #text\_change 17-Mar-2000  
C:Accession: E69135  
R:Smith, D.R.; Doucette-Stamm, L.A.; Deloughery, C.; Lee, H.; Dubois, J.; Aldredge, T.;  
; Qiu, D.; Spadafora, R.; Vicaire, R.; Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, N.  
ki, S.; Church, G.M.; Daniels, C.U.; Mao, J.; Rice, P.; Noelling, J.; Reeve, J.N.  
J. Bacteriol. 179, 7135-7155, 1997  
A:Title: Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: func  
A:Reference number: A69000; MUID:98037514; PMID:9371463  
A:Accession: E69135  
A:Status: preliminary; nucleic acid sequence not shown; translation not shown

A:Molecule type: DNA  
A:Residues: 1-689 <WTH>  
A:Cross-references: GB:AE000813; GB:AE000666; NID:92621320; PIDN:AAB84786.1; PID:G26213  
A:Experimental source: strain Delta H  
C:Genetics:  
A:Gene: WTH280  
C:Superfamily: unassigned ferredoxin 2[4Fe-4S]-related proteins; ferredoxin 2[4Fe-4S] h  
F/78-132/Domain: ferredoxin 2[4Fe-4S] homology <FER>

Query Match 1.7%; Score 7; DB 2; Length 689;  
Best Local Similarity 100.0%; Pred. No. 1.8e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 252 REIEKRR 258  
Db 391 REIEKRR 397

RESULT 94  
T18665  
hypothetical protein B0035.6 - Caenorhabditis elegans  
C:Species: Caenorhabditis elegans  
C:Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 04-Mar-2000  
C:Accession: T18665  
R:White, S.  
submitted to the EMBL Data Library, May 1996  
A:Reference number: Z19002  
A:Accession: T18665  
A:Status: preliminary; translated from GB/EMBL/DDBJ  
A:Molecule type: DNA  
A:Residues: 1-727 <WIL>  
A:Cross-references: EMBL:Z73102; PIDN:CAA97420.1; GSPDB:GN00022; CESP:B0035.6  
A:Experimental source: clone B0035  
C:Genetics:  
A:Gene: CESP:B0035.6  
A:Map position: 4  
A:Map position: 28/3; 66/2; 156/3; 578/3; 640/1; 714/1  
C:Superfamily: Caenorhabditis elegans hypothetical protein B0035.6

Query Match 1.7%; Score 7; DB 2; Length 727;  
Best Local Similarity 100.0%; Pred. No. 1.9e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 134 LLTPSII 140  
Db 314 LLTPSII 320

RESULT 95  
B71009  
hypothetical protein PH1368 - Pyrococcus horikoshii  
C:Species: Pyrococcus horikoshii  
C:Date: 14-Aug-1998 #sequence\_revision 14-Aug-1998 #text\_change 28-Jul-2000  
C:Accession: B71009  
R:Kawarayashi, Y.; Sawada, M.; Horikawa, H.; Hainaka, Y.; Hino, Y.; Yamamoto, S.; Seki  
M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudo, Y.; Yamazaki, J.; Kushida, N.; Oguch  
DNA Res. 5, 55-76, 1998  
A:Title: Complete sequence and gene organization of the genome of a hyper-thermophilic  
A:Reference number: A71000; MUID:98344137; PMID:9679194  
A:Accession: B71009  
A:Status: preliminary; nucleic acid sequence not shown; translation not shown  
A:Molecule type: DNA  
A:Residues: 1-728 <KAW>  
A:Cross-references: GB:AP000006; NID:G3236133; PIDN:BAA30474.1; PID:G3257791  
A:Experimental source: strain OT3  
A:Note: this accession replaces an interim accession for a sequence replaced by GenBank  
C:Genetics:  
A:Gene: PH1368  
C:Superfamily: Pyrococcus abyssi hypothetical protein PA82446

Query Match 1.7%; Score 7; DB 2; Length 728;  
Best Local Similarity 100.0%; Pred. No. 1.9e+02;  
Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 133 LLLTPSI 139  
 |||||  
 Db 12 LLLTPSI 18

## RESULT 96

T05409  
 hypothetical protein F10M6.170 - Arabidopsis thaliana  
 C/Species: Arabidopsis thaliana (mouse-ear cress)  
 C/Date: 23-Apr-1999 #sequence\_revision 23-Apr-1999 #text\_change 23-Jul-1999  
 C/Accession: T05409  
 R/Bevan, M.; Weichselgartner, M.; Partmann, B.; Granderath, K.; Dauner, D.; Herzl, A.; N  
 submitted to the Protein Sequence Database, February 1998  
 A/Reference number: Z15414  
 A/Accession: T05409  
 A/Molecule type: DNA  
 A/Residues: 1-764 <BEV>  
 A/Cross-references: EMBL:AL021811  
 A/Experimental source: cultivar Columbia; BAC clone F10M6  
 C/Genetics:  
 A/Map position: 4  
 A/Note: F10M6.170

Query Match 1.7%; Score 7; DB 2; Length 764;  
 Best Local Similarity 100.0%; Pred. No. 2e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 221 SLQELK 227  
 |||||  
 Db 146 SLQELK 152

## RESULT 97

IS1083  
 SOX-L2 - rainbow trout  
 C/Species: Oncorhynchus mykiss (rainbow trout)  
 C/Date: 13-Sep-1996 #sequence\_revision 13-Sep-1996 #text\_change 21-Jul-2000  
 C/Accession: IS1083  
 R/Takamatsu, N.; Kanda, H.; Tsuchiya, I.; Yamada, S.; Ito, M.; Kabeno, S.; Shiba, T.; Ya  
 Mol. Cell. Biol. 15, 3759-3766, 1995  
 A/Title: A gene that is related to SRV and is expressed in the testes encodes a leucine  
 A/Reference number: IS1083; MUID:95311974; PMID:7791783  
 A/Accession: IS1083  
 A/Status: preliminary; translated from GB/EMBL/DBJ  
 A/Molecule type: mRNA  
 A/Residues: 1-767 <YAK>  
 A/Cross-references: GB:D61688; NID:9272716; PIDN:BA09617.1; PID:9272717  
 C/Suprafamily: HMG box homology  
 F:554-629/Domain: HMG box homology <HMG1>

Query Match 1.7%; Score 7; DB 2; Length 767;  
 Best Local Similarity 100.0%; Pred. No. 2e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 33 LLGEVKG 39  
 |||||  
 Db 173 LLGEVKG 179

## RESULT 98

T27941  
 hypothetical protein ZK662.3 - Caenorhabditis elegans  
 C/Species: Caenorhabditis elegans  
 C/Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 18-Feb-2000  
 C/Accession: T27941  
 R/White, S.  
 submitted to the EMBL Data Library, August 1996  
 A/Reference number: Z20444  
 A/Accession: T27941  
 A/Status: preliminary; translated from GB/EMBL/DBJ  
 A/Molecule type: DNA  
 A/Residues: 1-780 <WIL>

A/Cross-references: EMBL:Z79604; PIDN:CAB01900.1; GSPDB:GN00028; CESP:ZK662.3  
 A/Experimental source: clone ZK662  
 C/Genetics:  
 A/Gene: CESP:ZK662.3  
 A/Map position: X  
 A/Introns: 30/1; 56/1; 98/3; 176/3; 206/3; 289/2; 311/1; 341/3; 444/3; 507/3; 655/1; 68

Query Match 1.7%; Score 7; DB 2; Length 780;  
 Best Local Similarity 100.0%; Pred. No. 2.1e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 391 DEIERM 397  
 |||||  
 Db 593 DEIERM 599

## RESULT 99

S51592  
 XynB precursor - Ruminococcus flavefaciens  
 C/Species: Ruminococcus flavefaciens  
 C/Date: 15-Jul-1995 #sequence\_revision 01-Sep-1995 #text\_change 15-Oct-1999  
 C/Accession: S51592  
 R/Zhang, J.X.; Martin, J.; Flint, H.J.  
 Mol. Gen. Genet. 245, 260-264, 1994  
 A/Title: Identification of non-catalytic conserved regions in xylanases encoded by the  
 A/Reference number: S51592; MUID:95115675; PMID:7816035  
 A/Accession: S51592  
 A/Status: preliminary  
 A/Molecule type: DNA  
 A/Residues: 1-781 <ZHA>  
 A/Cross-references: EMBL:Z35226; NID:9516273; PIDN:CAA84537.1; PID:9516274  
 C/Suprafamily: endo-1,4-beta-xylanase homology; Thermotoga xylanase A amino-terminal re  
 F:42-239/Domain: endo-1,4-beta-xylanase homology <XYL>  
 F:258-401/Domain: Thermotoga xylanase A amino-terminal repeat homology <TXA>

Query Match 1.7%; Score 7; DB 2; Length 781;  
 Best Local Similarity 100.0%; Pred. No. 2.1e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 84 ALXKILS 90  
 |||||  
 Db 5 ALXKILS 11

## RESULT 100

G95112  
 exoribonuclease, VacB/Rnb family [imported] - Streptococcus pneumoniae (strain TIGR4)  
 C/Species: Streptococcus pneumoniae  
 C/Date: 03-Aug-2001 #sequence\_revision 03-Aug-2001 #text\_change 24-Aug-2001  
 C/Accession: G95112  
 R/Tettelin, H.; Nelson, K.E.; Paulsen, I.T.; Eisen, J.A.; Read, T.D.; Peterson, S.; Hei  
 on, J.D.; Umayam, L.A.; White, O.; Salzberg, S.L.; Lewis, M.R.; Radune, D.; Holtzapple,  
 Science 293, 498-506, 2001  
 A/Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison  
 A/Title: Complete Genome Sequence of a virulent isolate of Streptococcus pneumoniae.  
 A/Reference number: A95000; MUID:21357209; PMID:11463916  
 A/Accession: G95112  
 A/Status: preliminary  
 A/Molecule type: DNA  
 A/Residues: 1-784 <KUR>  
 A/Cross-references: GB:AE005672; PIDN:AAK75096.1; PID:914972450; GSPDB:GN00164; TIGR:SP  
 A/Experimental source: strain TIGR4  
 C/Genetics:  
 A/Gene: SP0975  
 C/Suprafamily: virulence-associated protein vacB homolog

Query Match 1.7%; Score 7; DB 2; Length 784;  
 Best Local Similarity 100.0%; Pred. No. 2.1e+02;  
 Matches 7; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 203 FEEDGSL 209  
 |||||

Db 50 FEEDSL 56

Search completed: April 16, 2004, 10:20:59  
Job time : 35 secs